








for Catalog of # 7357-7380  
see p 47







Digitized by the Internet Archive  
in 2017 with funding from  
CLIR







1986(spring)

Catalogue  
# 7338 - 7342

Argentina







Pearson  
1986

Catalog  
Microsorex Hill, 1317m, 5km SE Estación Perito Moreno,  
Rio Negro, Argentina

+SKEL

7338

♀ *Eumomys*

May 3, 1986

180 × 68 × 25 × 20.5 g. 38g. nulliparous

+SKEL

7339

♀ "

173 × 68 × 24 × 20 32g. nulliparous

2km E Estación Perito Moreno, Rio Negro, Argentina

skel only

7340

(86-24)

♀ *Reithrodon*

May 14

234 × 89 × 34 × 27½ 93g. pink uterine scars

was tagged Nov. 30, 1985; shot 5/14/86.

skel only

7341

(86-26)

"

239 × 92 × 35 × 26 116g. sic. T7, SV 9, tubes not vis. Eye 8.44mm diam.

was tagged Nov. 30, 1985; shot 5/14/86.

Anticura, Puyehue National Park, Los Lagos, Chile

Jan. 1, 1986

7342

♂ *Abodon?* sp.?

— × 92 × 23 × 17 37g.

"adult."

(PN10)

specimen from Peter Temple Smith, caught on trail to Salta Priocosa ± 200m from Cabaña. Skin + skull. Skin to be rec'd from Australia, arrived 7/86







1986(spring)

Journal

Argentina








Pearson  
1986

April 15 Bariloche. arrived yesterday, beautiful warm day no wind. Plane did a loop up Traful Valley and back down Lake Nahuel Huapi. Lots of wild country. Michael Christie dropped in, Delivered letters accumulated last December.

April 16. Sunny warm, not windy. In afternoon drove out to 1<sup>st</sup> Summit (20 km NE Bariloche) and set 9 steel traps around Berberis clumps on edge of bunch-grass/juncus mallin. Not many droppings. Then photod the tree (cypress) again and set 1 steel trap up in each of the two trees in the photo. Gaucho came by to check sheep below the road.

~~at~~ the Encamp cypress are scattered bunches of needle grass with long flower stalks, neneo, Baccharis with very small leaves, palo pichu, Berberis <sup>buifolia?</sup> with heavy triple thorns and leaf , acacia splendens, 1 clump lily, scattered tiny Rumex, Ephedra, Colletia

at 5 p.m. set 9 steel traps for Reithro in edge of clumps of Berberis isolated in grassland near the edge of juncus mallin

jacklighted 8:30 to 9:00 and saw 3 different Reithro, moon set (1/3<sup>rd</sup> full) about 9:30 p.m.

Hunted until 11:30 (calm, not cold); shot 4 adult Reithro, an also longi trapped in Berberis before 9:00 p.m. Then hunted again 4:45 a.m. to 5:45; saw a couple more Reithro and shot 2 culisomys near a bushy tangle in steppe (along road).







Pearson  
1986

2a

Owl pellets from Cerro Gomez, April 17  
Entire pellets, mostly very large

- |   |   |  |
|---|---|--|
| (1) 1 yg Peithro<br>1 yg - ad aulisco<br>1 ad Scopus      | (23) 1 old Oryz.<br>1 yg tuco (incisor 3.2)                               | (44) 1 ad also Peithro<br>1 ad Chalanga                                |
| (2) 1 ad Peithro  | (24) 1 ad also Peithro<br>1 old Oryz.<br>1 old aulisco                    | (45) 1 ad also longi   |
| (3) 1 ad Oryz.<br>1 old ad Eligma<br>1 ad aulisco         | (25) 1 old aulisco  | (46) 1 old aulisco   |
| (4) 1 yg Peithro<br>1 old ad aulisco<br>1 yg aulisco      | (26) 1 old aulisco<br>1 yg aulisco<br>1 old also Peithro                  | (47) 3 old Oryz.<br>1 ad also Peithro                                  |
| (5) 1 old ad aulisco<br>1 ad aulisco<br>1 ad also Peithro | (27) 1 old also Peithro<br>1 old also longi<br>1 ad Oryz.                 | (48) 1 ad also longi<br>1 old Oryz.<br>1 ad also Peithro               |
| (6) 1 ad aulisco<br>1 ad Oryz.<br>1 ad Eligma             | (28) 2 old Oryz.<br>1 old also longi<br>1 ad also Peithro<br>1 ad aulisco | (49) 1 adult aulisco   |
| (7) 1 old also longi<br>1 old Oryz.<br>1 ad Oryz.         | (29) 1 ad aulisco   | (50) 1 ad also longi   |
| (8) 1 yg Peithro<br>1 ad aulisco                          | (30) 1 old aulisco<br>1 old Oryz.<br>1 ad Oryz.                           | (51) 1 old aulisco   |
| (9) 1 old Oryz.<br>1 ad aulisco<br>1 yg Peithro           | (31) 1 ad also Peithro<br>1 ad Oryz.                                      | (52) 1 ad Peithro  |
| (10) 1 ad aulisco<br>1 ad Peithro                         | [32] no skull   | (53) 1 old aulisco   |
| (11) 1 ad aulisco   | (33) 2 old Oryz.<br>1 ad also Peithro                                     | (54) 1 ad aulisco<br>1 old Chalanga<br>1 ad Oryz.<br>1 ad also Peithro |
| (12) 1 ad aulisco<br>1 old aulisco                        | (34) 1 ad Oryz.   | (55) no skull  |
| (13) 1 old Peithro<br>1 yg ad aulisco                     | (35) 1 ad also longi<br>1 yg ad aulisco<br>2 ad Oryz.                     | (56) 1 ad aulisco<br>1 yg ad Oryz.                                     |
| (14) 1 ad aulisco   | (36) 2 ad aulisco   | (57) no skull  |
| (15) 1 ad aulisco   | (37) 1 ad Oryz.   | (58) 1 ad aulisco  |
| (16) 1 ad aulisco<br>1 yg ad "                            | (38) no skull   | (59) 1 ad Oryz.<br>1 old Oryz.<br>1 old aulisco<br>1 ad Chalanga       |
| (17) 1 yg ad Peithro<br>1 ad Oryz.<br>1 ad also Peithro   | (39) 1 old Oryz.<br>1 ad Oryz.  | (60) 1 old aulisco<br>1 old Oryz.                                      |
| (18) 2 ad also longi<br>1 ad aulisco                      | (40) 1 ad also longi<br>1 yg ad also longi                                | (61) 1 young Peithro   |
| (19) 1 ad also longi                                      | (41) 1 ad Oryz.   | (62) 2 ad Oryz.<br>1 yg Oryz.<br>2 ad also Peithro                     |
| (20) 2 ad Oryz.<br>1 old Oryz.<br>1 ad also Peithro       | (42) 1 old aulisco  | (63) 1 ad aulisco  |
| (21) 1 ad Chalanga  | (43) 1 ad aulisco   | (64) 1 yg aulisco<br>1 old aulisco<br>1 ad also Peithro                |
| (22) 2 ad Oryz.<br>1 old also longi<br>1 ad also longi    | (44) 1 ad Oryz.   | (65) 1 old aulisco<br>1 ad aulisco<br>1 ad Oryz.<br>1 ad also Peithro  |
|   | (45) 1 old aulisco  | (66) 1 ad also longi<br>1 yg aulisco                                   |







Pearson  
1986

26

Carro General April 17 (cont.)

(68) 1 ad Eumecurus  
1 yg Aulico

[69] no skull

(70) 1 ad Oryz.  
1 old Aulico  
1 ad Eumeco

(71) 1 ad Oryz.  
1 ad Aulico  
1 ad abo. longi  
1 old abo. longi

(72) 1 ad Perithous

(73) 2 ad. Aulico.

(74) 1 ad abo. Perithous  
1 old Aulico  
1 old Oryz  
1 yg Chelomys

(75) 3 ad Oryz.  
1 ad Aulico

(76) 1 ad Aulico

(77) 1 old Aulico  
1 old Elgiva







Pearson  
1986

3

Halley's comet visible all night.

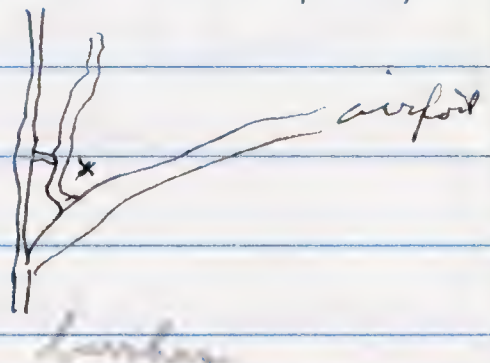
April 17

Picked up traps at daybreak; nothing new. Saw no hares while jacklighting.

Stopped at Cerro Seavee and picked up about 5 qts of big owl pellets. The most abundant shrub in the flats is a narrow-leaved <sup>(maybe *Senecio* sp.)</sup> *Baccharis*; up higher there is a broad-leaved *Baccharis umbelliformis*. Next most abundant down low is *Yucca*, then *Eryngium*, then *Senecio*, *Colletia*, *Ephedra* and (up high) *Palafoxia*. Scattered throughout is bunchgrass (*Stipa speciosa*??). The shrub-trees down low are "Chacoy" = *Discaria serratifolia* with spines. maybe a few small *radal*.

April 18

Left at 3 p.m. for another Reithro shoot. Lots of signs at the corner where the road to the airport goes off, but visible from police checkpoint. Drove onto Arroyo Chacabuco where there is also lots of signs in grazed turf around islands of turf. Lots of roadwork there; it is now possible to park off the road there. Rain off and on and windy.



Jacklighted 8:30 to 9:30, half moon, drizzle off and on, windy. Saw hare(s) 2 or 3 times (arroyo Chacabuco) but no mice. Again at 1:45 to 2:15 saw no mice (mostly clear, windy). Then drove back to the airport turnoff and jacklighted 20 min. and drove a little dirt road slowly for 1/2 mile (twice) but saw only hares. Weather mostly clear; moon had set about midnight.







4

April 19. Synn Branch arrived with right vision goggles.  
also Felipe Valverde, Christie, + Patricia. Took  
Synn out to Juan Martinez, then went  
Reithro hunting at Estancia La Fregata, east  
of Estacion Perito Moreno.

Went up Cerro Otto in a.m. to cut bamboo  
poles. Now snow at the Pies de Blanque level  
and above. Sengas beginning to turn.

Flamingos on the lake at Perito Moreno,  
now delimited with Park signs and called  
Laguna Los Juncos. Camped on the flats  
east of Perito Moreno, about 1 km farther  
east than usual. Innumerable numbers of  
Reithro droppings. Heard two at 6 pm  
"tuc-a-tuc", mostly clear, cold, calm,  
moon  $\frac{1}{2} + x$

April 20 Perito Moreno Jacklighted 8:30-9:00 with moon, calm; saw 2  
Reithro in Barberis clumps. Then between  
9:30 and 10, mostly moonlight, saw about 5, shot  
3 of them, all solitary although 2 of them less  
than 20 m apart, all in or edge of Barberis island.

Jacklighted again 3:30 to 4:45, calm, overcast,  
heavy frost. Saw no Reithro, 2 hares, heard barn  
owl. at dawn (8 a.m.) overcast and the frost had  
turned to dew.

Heard tucoos from 3 directions simultaneously at  
3:30 a.m.; another at 4:45 a.m. Perhaps the van door  
sliding shut sets them off? In the morning one







5  
could see lots of fresh digging; a calm night.

This locality on Estancia La Fregata is about 3 km E of Estación Punta Moreno (or Laguna del Juncos). The lake is  $\frac{1}{2}$  mud flats now, the flowers standing in the middle of the lake part.

after daybreak I explored two seeps on the south side of the road a few hundred meters west of the turnoff to the microwave tower. Green turf, weeds, burreed, and charney trees. Some Charney (Discaia) had been cut years ago with trunks 10" diam. Unbelievable numbers of Rattus droppings around these seeps.

Two people have on road back to Bariloche. a car with searchlight cruised up and back the road about 11 p.m.; I heard one shot. Home 11 a.m.

~~April 2~~ Bariloche. Dinner at Tarak's with Susan Martin, Susan Branch, Andy ---, a young argentant studying penguins.

April 21 Bariloche. Rain all day.

April 2 scattered showers. Left 3 p.m. for Estación Punta Moreno. Scattered clouds. Put 11 cage traps for Rattus, cheese bait, at km 3.6 on south side of road at a seep. Lots of droppings. Sr. mafel not home. Then found a fine campsite about 100 m above the gate on the way to the microwave station. a seep, burreed, charney, burregrass, juncos, lots of Rattus droppings. Put out 4 more cage traps plus 7 hole traps. Several clusters of Rattus holes within 30 m of the







van. Tucos singing. When I ran 50m  
up onto a rocky knoll to photograph a rainbow  
I found a modest number of Eusomys  
droppings. Evening calm, moon almost  
full, ~~clouded~~ over at about 8 p.m., then  
clear in middle of night, then cloudy at dawn.

April 23 4 km E Estación Rerito Moreno. Night hunted from  
8:10 p.m. to 11 p.m. and 5 a.m. to 8 a.m., the last 15  
minutes too light to be effective. Released 2 Alouatta  
longipilis and 1 Aekomyia adult during the night  
trap checks. Got about 3 brief Rattus sightings  
near the car, one near the reef on the flats south  
of the road, and about three north of the road (between  
road and R.R.). ~~How~~ shot one of these. Heard barn  
owl early in evening and 2 or more horned owls  
later in evening (but before 11 p.m.). Most of the Rattus  
sightings were after moonset (5 a.m.), all were  
shy except the shot one.

In the morning (cloudy) the traps held 3 aka longi  
and 2 adult Rattus (marked and released). A big  
cave about the pipe line just above camp has pictographs.

Tucos called at many different times during the  
night and early morning; no wind.

In the afternoon (drizzle) put 2 cage traps on the rocky  
knoll where the Eusomys pellets are. The knoll is  
surrounded by big dead Palo Pishi killed by fire 5-10 yrs  
ago. Some Palo Pishi regenerating, plus Ephedra, Callitriche,  
Lambdium, Senecio, Senecio. Some of the Berberis patches have







Ribes cucullatum.

Started to rain at 8 p.m., hunted briefly about 9, then again 10 to 10:30 during a let-up. Full moon, calm, but cloudy.

April 24. 4 km E Puerto Nuevo (camp off road to Macanocha),  
rain much of night, full moon, no wind. During  
lulls in early evening hunted with NVGs; nothing.  
Then with NVGs or flashlight from 3:00 to 5:30. Two  
horned owls on the <sup>Eucadomys</sup> rocks above camp; heard ~~barren~~ <sup>barren</sup> owl.  
Saw a half-dozen Reithro, collected one, another  
in a hole trap near car.

In the morning (cloudy, not raining, traps held  
this 1 Reithro, 2 Oryz (one of them in a hole trap  
over a Reithro hole), and 3 also longi (two of them  
in one cage trap). Traps out were 3 steel, 14 cage, and  
7 hole.

a 9" cacao stump had 65 growth rings. Photoed  
droppings and the habitat at 3.6 km E.

Have seen no yellow jacquets. Two or more  
hummingbirds started using the feeder about 3 days after  
I put it out (Sephanoideus)

Rosetta of altitude and distance: altitudes in feet  
read within an hour or a day of low barometric pressure (88m)  
at Belgrano 41 (street) 2,970 ft <sup>apparent m</sup> 905 <sup>true m</sup> 817  
Sebe Natural Huerfio 2,820 = 860 - 88 772  
Cerro Jesus (road) 3,066 = <sup>914</sup> 914 826  
Summit 1 <sup>3,970</sup> 3,770 = 1149 1061  
Summit 2 3,580 = 1091 = 1003







corrected in

Estacion Perito Moreno 3270 = 997 = 909m

1984 campsite is 1.8 km E Estacion Perito Moreno.

4/20/86 roadside camp 3.2 km E

4/23/86 roadside seeps 3.6 km E (pellet photo)

Microcave Road turnoff 4 km E

April 25 Barileles. Visited Galapagos. Probel has visited the Siao Siao and Cerro Otteclump a couple of times. There has been a lot of commercial cane cutting on Cerro Otte, and a few canes were cut from one of our measured clumps. Rofopert interested in species diversity of local rodents. Then went to INTA where I saw Bellati, Bonino, and Julieta. Bellati is using scent posts (fish bait) plus tracks in the smoothed earth around the posts to study foxes; grey fox at Pileamigen and red fox at Estancia El Condor. They took me around to meet Guillermo Siffredi who dashed off a key to the common grasses for me.

at least 4 Sphenoides hummingbirds using the feeder on the balcony. They give a long warbling vocalization when they are squabbling, and sit patiently on the roosting when the feeder is occupied.

Have seen no yellow jackets.

April 26 Bittered clouds. At 3 p.m. drove out to Perito Moreno and put about 16 Sherman traps with oats at the Emancipacion road (4 km E). The burn by now







there seems to be mostly Stipa speciosa speciosa but some other also. Plus dwarf neuro and regular neuro side by side in middle of photo. Then the INTA pickup stopped and I showed Adrian, Juliette, and Javier the turf at 3.6 km. In the middle of some small Berberis a big broad-leaved grass has grown up; Juliette says a Bromus and that it is the same as the closely grazed turf grass, maybe B. setifolius. Javier says this slope burned in 1978 or 1979.

Then back to the roadside camp at 2 km; set 15 cage traps (oots) around Ribes and Berberis clumps, for Reithrodontomys. Impressive numbers of hare droppings in the thick grass between fences and railroad. Wind died at sunset, mostly cloudy. Sr. useful says unusual abundance of hares this year.

Jacklighted and NVG<sup>7:55</sup> 2: ~~7:55~~ to 9:40 with NVG saw 1 aulicomy? and 3 Reithrodontomys; 9:45-10:40 with jacklight saw 3 R, shot 1. Full moon but clouds, no wind. Then NVG again 10:55 to 11:50 saw 1 R. Then 4:20 to 5:47, saw 4 R. Then jacklight to 6:10, saw 2 R. Horned owl sitting on fence post in study area, flew onto RR phone pole.

Ran the 15 cage traps early in the evening and detained one ♀ Chalcophaps adult with open vagina, one ad. ♂ aulicomys, and 4 also longi ad. Released them in the morning.







Pearson  
1986

12

April 27. The 15 cage traps, all around Berberis or River clumps, held 3 also longi and 1 Oryz. The 16 Sherman at "Eucosmyni" Rock at 4 km E P.M. held 4 also longi and 3 Oryz. Total 31 traps = 11 also longi, 4 Oryz, 1 aulicus, 1 Chelomys = 17 mice, no Rattus.

Photo'd in morning (overcast), still not windy. Then visited the owner Marful. He says the name of mountain Hill is not Cero Mojón. Cero Mojón is another hill with a surveyor's heap of stones on it.

Returned to Barilache 1 p.m. Conference with Adrian Monjean in evening. His removal of Chelomys longipilis from the species of Cañon Bonito was followed by an increase in the number of auliscamps - all adults.

April 28 Barilache, Partly cloudy, windy, Visited Hilda Pineda.

April 29 " Clear, windy, then cloudy up. Adrian came to discuss thesis. Bruno Pultraski visited.

April 30 Rain in morning and most of afternoon. Left with Adrian 4 p.m. for La Fregia. Sattered showers but then almost clear by sunset. ~~Put~~ Camped at the 2 km. place south of the tracks. I put out 15 cage traps between the car and the RR. Adrian put <sup>18</sup> ~~20~~ Sherman on the edge of the bushes back toward Marful's, plus 18 Sherman in the rocks up the hill south of the road.

May 1 86-14 227 x 98 x 35 x 24.5 (egg.) see Rattus species account.  
15 232 x 94 x 35 x 26 65 g.)







Estación

Bubo pellets, May 1, 2 km E Perito Moreno  
Rio negro

= Marful's or  
= 2 km E Laguna los Juncos.

Complete pellets:

- |   |  |
|---|--|
| (1) 1 old Reithro<br>1 yg ad Reithro<br>1 ad abo longipilis | (24) 1 old Eligmo<br>1 ad abo longi<br>1 yg ad Euneco    |
| (2) 1 yg Chelemys<br>1 abo fanto adult<br>1 ad abo longi    | (25) 2 ad aulisco<br>1 juv. abo fanto                    |
| (3) 2 ad. aulisco   | (26) 1 juv. Reithro<br>1 old aulisco                     |
| (4) 1 ad Geopha<br>1 ad Reithro                             | (27) 1 juv. Reithro<br>1 old aulisco<br>1 juv. aulisco   |
| (5) 2 ad. aulisco   | (28) 2 ad Reithro  |
| (6) 1 ad abo. longi<br>1 ad Irenomys sic!                   | (29) 1 ad Eligmo<br>1 ad Chelemys<br>1 ad aulisco        |
| (7) 2 juv. Reithro<br>2 ad abo fanto                        | (30) 1 ad Chelemys<br>1 ad abo longi<br>1 ad abo fanto   |
| (8) 1 yg Oryz<br>1 ad Oryz<br>1 ad abo longi                | (31) 1 old Oryz<br>1 juv Reithro<br>1 ad abo. longi      |
| (9) 1 old abo fanto<br>1 ad abo longi<br>2 ad aulisco       | (32) 1 juv Reithro<br>1 ad Euneco<br>1 ad abo fanto      |
| (10) 1 juv. Reithro<br>1 ad aulisco                         | (33) 1 ad Chelemys<br>1 ad abo longi                     |
| (11) 1 yg ad Reithro<br>1 ad aulisco                        | (34) 1 ad Reithro  |
| (12) 1 old Reithro  | (35) 1 ad Ctenomys                                       |
| (13) 1 ad abo fanto<br>1 old aulisco                        | (36) 1 ad abo fanto<br>1 ad aulisco                      |
| (14) 2 abo longi<br>1 old aulisco                           | (37) 1 yg ad Chelemys<br>1 ad abo fanto<br>1 ad aulisco  |
| (15) 1 ad aulisco   | (38) 1 ad Euneco   |
| (16) 2 ad abo longi   | (39) 1 ad aulisco<br>1 ad Chelemys                       |
| (17) 1 ad Irenomys sic!                                     | (40) 1 ad aulisco<br>1 ad Oryz                           |
| (18) 1 yg aulisco<br>1 ad aulisco<br>1 ad Oryz.             | (41) 1 ad Chelemys<br>1 ad abo fanto<br>1 ad abo longi   |
| (19) 2 ad abo fanto<br>1 old abo longi                      | (42) 2 ad Oryz<br>1 ad abo fanto<br>1 ad aulisco         |
| (20) 1 yg ad aulisco<br>1 Chelemys                          | (43) 2 ad abo longi<br>1 old aulisco                     |
| (21) 2 old abo longi<br>1 ad abo fanto<br>1 ad Chelemys     | (44) 1 juv. Ctenomys<br>1 old Chelemys<br>1 ad abo longi |
| (22) 1 ad Euneco  | (45) 2 ad aulisco (cont.)                                |
| (23) 1 yg ad Reithro  |  |







- (46) 1 ad Reithro  
 (47) 1 old Eligma  
 2 ad abo longi  
 (48) 1 ad Eligma  
 1 ad abo longi

- (49) 1 yg ad Reithro  
 (50) 1 old aulisco  
 1 ad Reithro

- (51) 1 ad Reithro  
 1 ad abo pautlo

## SUMMARY

		ENTIRE	PARTIAL	TOTAL
(52) 1 ad Reithro				
(53) 1 ad Reithro	aulisco	33	8	41 24%
(54) 1 old Reithro	Reithro	27	8	35 21%
(55) 1 old abo pautlo	abo longi	26	3	29
(56) 1 ad Oryz 1 ad Reithro	abo pautlo	20	1	21
(57) 1 ad. abo longi 1 ad aulisco 1 ad chelempe	chelempe	11	2	13
	Oryzomys	9	3	12
(58) 1 ad aulisco 1 yg Reithro	Eligma	6	-	6
(59) 1 ad abo pautlo 1 ad Oryz 1 ad abo longi	Eumys	4	1	5
	Ctenomys	3	2	5
(60) 1 yg Ctenomys	Preomys	2	-	2
(61) 1 yg Reithro 1 ad abo pautlo 2 yg Eligma	Geopus	1	-	1
		142		170
(62) 1 ad. aulisco				
(63) 1 ad abo longi				
(64) 1 old aulisco				
(65) 1 ad abo longi 1 ad abo pautlo				
(66) 1 yg Reithro				





Pearson  
1986

Ran my traps at 10:00 p.m.: 2 Chalcamps, 1 also faulth,  
1 Rethro (at the big East River), 2 aulisco, 3 also  
longi. Adrian had 1 aulisco and 1 also longi. Much  
hunting for Rethro with NVG, windy, no moon,  
until 10:40 p.m. Then NVG again 3:05 a.m.  
very windy, clear, half moon. Returned to car at  
4:15 (one Geofur in trap).

at 8 a.m. my traps had 4 also longi (2 in  
one trap) and 3 aulisco. <sup>+ 1 Rethro</sup> Adrian's traps in the  
morning had  $\pm$  3 aulisco and  $\pm$  3 also longi. He  
18 traps up among the rocks had 4 also faulth,  
3 also longi, 1 Oryzomys, and 4 Phyllotis.  
Eumomys and Dagidium droppings seen. = 18 traps  
12 mice

Summary of my 15 traps (weeds + Piedra/Barberia)  
= 2 Chalcamps, 1 also faulth, 2 Rethro, 1 Geofur, 5 aulisco,  
and 7 also longi = 18 mice.

Summary of Adrian's 18 traps at edge of brush  
in weeds:  $\pm$  4 aulisco and 4 also longi.

See Rethrodon for night watching. Day clear.

Returned to Barlocks at 12:30. Milton Zellerbach  
and Gonzalo Aguilar arrived at 1:00. They had pit  
traps for tucos on Cerro Otto (Piedras Blancas) which  
we checked at 3 p.m. (2 tucos). Felipe Valverde  
accompanied us to the apartment to prepare  
chromosomes.

Some young lambos canes on Otto only about  
1 m tall, slender, lavender, almost succulent.





May 2 Gallardo & Aguilar caught 3 *Tucos* on Otto. In the afternoon we drove to 2 km E Perito Moreno (clear, windy) and they set 26 steel traps for *tucos*. I counted pellets. Then we drove to the top of *Mineros Hill*. They set 37 *Shermans* and I set 10 cage traps. Very windy. By the time we came down, maybe 2½ hours later, there were 4 *tucos* in the traps. Returned to Bariloche at 7:30.

May 3 My 9 cage traps on *Mineros Hill* caught 3 *cho longi*, 1 *Ambico*, and 2 adult *Eumomys*. Gallardo/Aguilar's 37 *Shermans* caught 3 *Eligius*, 1 *Chalcops*, 1 *cho panthera*, 5 *cho longipilis*, and 2 *Eumomys*. = 46 traps, 6 species. Then 26 *Tuco* traps at 2 km E P.M. between the road and the first fence caught 8 *tucos*, 1 *Chalcops*, 1 *Penthera*, and 1 *cho longi*.

Only a little wind on the summit of *Mineros Hill*. Day clear, warm, not windy. Back to Bariloche at noon.

Went back to 2 km E at 5:30, clear, calm and hunted with NVGs and flashlight from 7:45 to 11:30 and 4:15 a.m. to 5:20. Moon came up (partly cloudy) at 5:00. See *Penthera* species account.

For my "Turf" habitat, Gallardo suggests "Pradera Natural." Bushy grass = *Coironal*

May 4 Returned to Bariloche at 11:00. Road race. People picnicking at all the dangerous curves.

Day clear and windy. at 4 drove to the *Ctenomys*





12

sociabilis locality along the paved road 10 km NNE  
Nahuel Huapi. Gallardo and Aguilar set 24 steel  
traps for Ctenomys and I set <sup>13</sup> ~~14~~ cage traps across  
the road for Reithrodon, baited with alfalfa pellets  
and rolled oats. Lots of sign of Reithro. Two of  
the two burrows were plugged up while we drove  
to Rincon Grande ad back.

may 5 Ran traps at 10 a.m., scattered clouds, light breeze.  
my traps held 6 aka longi and 1 Auliscomys and 1  
trap rolled over + empty. Lots of Reithro droppings.  
The two traps held 3 Ct. sociabilis and 1 aka longi.

We then drove to Cueva Triful and back and  
picked up the traps at 10 km NNE. Two plugged burrows  
but no new animals. There is a fair number of  
diggings west of the fence in an island of dwarf  
turf where the tussocks have left only the Succisa  
and have eaten the bunches of Stipa speciosa.

On the way back from Confluencia, Gonzalo  
noticed some two burrows on the west side of  
the road 200 m north of Arroyo Carbon. This is  
33½ km by road north of Nahuel Huapi (the outlet  
of the lake). Looks good for sociabilis, OK for  
camping across the road. This is 24.4 km NNE of  
Nahuel Huapi straight line.

at 5:30 went out to the meadow at Lampa  
de Huanuco and Milton + Gonzalo set 13 two  
traps. Lots of sign.





May 6 Picked up two traps: 3 tuco, lone puddle, scattered clouds. Gallardo + Aguilar left at noon, went jacklighting at the east end of the private airport, on the cut-off road that goes south of Cervo Sever, 12 km ENE Barileche. Night clear, no moon, light breeze, not cold, NVGs from 7:25 to 7:50 in grazed bushgrass, turf, rosa mosqueta, weeds, Berberis. Saw nothing. Then jacklighted to 9:25; shot 3 Reithrodon; 2 others seen. Also saw 1 other smaller mouse, caught no eye shine, saw it going away in a rosa clump, maybe *Oryzomys*.

Then drove maybe 300 m farther east and jacklighted in similar but more open, more turfey habitat. no holes, few droppings, saw nothing 9:20 to 9:50.

May 7 Barileche. Sunny. Many yellow jacks on balcony. Weighed grass, Reithrodon droppings, etc. Dinner at Gallopini's.

May 8 Barileche. With advice in the morning to Parque to talk with Carlos Matur. He was out but Mónica Mermoz was in and showed us maps and satellite photos. They have a nice map that they have assembled of the whole Huapi area using the following vegetation categories:

- ① Peladar de altura
- ② Bosque caducifolios y matorrales
  - (2.1) Bosque y matorral de larga
  - (2.2) Bosque Bajos y matorrales altos (esp. predominante *n. antarctica*, incluye también esp. *perennifolias*)





- Retamo, Rodal, Maiten, Loma, etc.

(2.3) Matorrales Bajos (dominante N. antarctica y cañaverales (Chusquea coulson)).

(2.4) Mosais de Matorrales y/o cañaverales con vegetación herbacea y/o suelo desnudo.

(3.0) Bosques perennifolios

(3.1) Bosque dominado por coihue

(3.2) " " " Ciprés

(4) Estepas

(4.1) Estepa herbacea y/o arbustiva enana [como Seonax]

(4.2) Estepa arbustiva baja

(4.3) Estepa arbustiva baja con arbustos dispersos

(5) Vegas, molhues, y/o Pastizales densos (en zonas boscosas incluye losques en galería).

She thinks "Prodera" is the best word for my "Turf". Says "Vega" = "mullin" (but see Dictionary).

May 9 Barilech. Scattered clouds. Drove to Estancia Cordero at 4:30 to hunt Reithro. The electric line people were building towers at our old camping place at 22 km ESE Barilech, so I drove about 1.1 km farther east and stopped by the road. Good turf, and extensive, both S and N of road, with scattered clumps of Berberis, Ribes, and roso magueta, bunchgrass surrounding. Lots of scattered R droppings, hare droppings. Saw 4 hares while hunting, and 5 crossed the road at 11:30 p.m. between the hunting place and the Cordero





May 10 driveway. Photographed Reithro, home midnight. Bariloche. Windy, partly cloudy. Weighed Reithro fodder & droppings. Back to same place at El Cordon at 5 p.m. Watched and photoed Reithro with NVG and flashlight. Saw big bats and big skunk, both in the middle of my Reithro area.

Our former campsite (22 km ESE Bariloche) is 1.7 km beyond the Cordon driveway. Lots of Reithro droppings in the meadow there N of the road. The Reithro photo strip is 1.1 km E of there. Saw 7 hares in the headlights at 11:30 in the 2.8 km from the photo place to the Cordon drive. Several hares seen near the photo place.

May 11 conference with Valverde, then back to El Cordon at 6 p.m. Cold, calm, clear. Hunted & photoed Reithro. Back 11 p.m. 5 hares in the same 2.8 km of road.

May 12 Clear. To Glac Glac bamboo with Isabel Gallopin. A Chucao came right up to us many times while we were working at clump #1.

May 13 Tarak came by. He says "Prado" is the best word to describe the Reithro "turf".

To describe the droppings of Eumomys, Argentine markets sell a "cereal listo para comer" called "RICE KRISPIES".

Patricia thinks "Prado" is too formal-garden a word, agrees that "Pradera" means prairie, not necessarily short grass, and that the best Spanish word for turf is a horse-racing word "turf".





Left at 2:30 for 2 km E Perito Moreno (Marful's meadow = Marful's Turf), collected sampler of turf, put 4 cage traps at the turf at the gate at 3.6 km E, and 9 more along RR and N fence at 2 km, also 6 cage traps over Reithro holes in the meadow near the fence.

Hunted with NVGs and .22 from 7:30 to 10:40 and 3:35 to 4:35, moonset at 9 p.m. Cloudy, dead calm. Ice in water jug. Shot 11 Reithros.

May 14 Morning cloudy, completely calm. Only mouse caught was Reithro #1 before 8 p.m. in a cage trap (all tailed with green grass and Lactuca dardeliana). Back to Bariloche 10:30 a.m.; drizzle, then rain all day.

May 15 Rain all day. Took turf sampler out to INTA where Siffredi identified the 3.6 km piece as "80% Holcus lanatus" (Pasta mix or Velvet Grass, imported from England); the rest white clover with tiny leaves and another grass with rolled leaves. The turf from Marful's Meadow (2 km E P.M.) is a mixture (in my 8" sample) of about equal areas of filaree, Rumex acetosella (shelly) and grasses such as Holcus lanatus and another narrow-leaved grass. The sample also has one thistle rosette 50 mm diam., weighted grasses. See Reithro notes.

May 16 Rain almost all day (Bariloche). Two more names for "turf" habitat. One is "Eloradero" which I guess is equivalent of a hillside seep. The other, invented by Patricia, is "carpeta compacta" or "carpeta compacta".





15  
~~cast~~ de pastos y yerbas."

Released Reithrodon 86-10 in the stone wall in back yard. Felipe Valverde, Michael Christie, and Adrian Merizian came to call.

Caught two hummingbirds at the feeder and collected excretions on paper towels (Sapthomidae)

May 17, Boulebo, Pruspy, Abel Basti, the other park guard from Cerro Catalal, Belstoy, and Adrian were at the airport. The park guard said this year in the valley of Casa de Piedras there were flowering patches of bamboo and dead rice in the trail. He also said that at Puente Bled the cut stone, very big, of bamboo persisted in a trail cut in the 1940s. Abel repeated Huenchufan's statement that the Cand(?) Villegas (?) bloomed in 1939.





1986 (spring)

## Species Accounts

Argentina





Pearson  
1986

19

Onychomys leucogaster

- April 16 1st Summit (20 km NE Barro Colorado). 1 caught in one  
of 9 jump traps in clump of Berberis at edge  
of grass/pancusa marsh.  
♂ 30.0g, testis 5 mm flabby, epididymus not visible, SV 8 mm  
= post-breeding. Not saved.
- April 23 4 km E Est. Perto Moreno. Caught 3 also large  
in cage traps set for Dactylopsilus  
♀ not open 28g. nullip.  
♂ 31g. Testis 5 mm flabby  
♂ 30g. Testis 5 mm flabby.
- April 24 (♂ 28g. testis 4½ mm flabby.) in same cage trap.  
(♀ 30g. not open, no scars)  
♀ 33g. not open, uterus with scars





Pearson  
1986

29

*acibecomyx*

April 16 20 mi NE Barro Colorado (1st Summit) shot at 5 a.m.

1 ♀ 74g. Vagina open, lips red, not well seen

1 ♂ 51g. nullip.

Both at a dense bush tangle in steep, one in it  
and one next to it. Shot about 5 a.m., totally dark.





Pearson  
1986

31

Oryzomys longicaudatus

April 24 4 km E Estación Puerto Moreno. In hole traps, entered  
only by emerging from Rullero hole:

20g ♀ ov. closed, nulliparous

Apr 27 4 km E E.P.M., "Encamp Rock":

23g ♂ not breeding

24g ♂ not breeding.

28g ♀ parous





Pearson  
1986

22

Reithrodon

April 16 20 km NE Barro Colorado (1st Summit).

86-1 ♂ 221 x 82 x 34 x 26 96 g. testes 10 slightly fleshy, epididymal tubes easily visible, incisors 2.52 S.V. 12 mm; prob. post-breeding. Stomach green.

86-2 ♂ 210 x 82 x 34 x 27 68 g. Testes 6 white sl. fleshy, S.V. 5.5, tubes not visible, incisors 2.11 Stomach green.

86-3 ♀ [215] x [71] x 32 x 25 88 g. vag. open, inf. med., ut. white 1 1/2 mm no scars, incisors 2.42 Pelvis not open.

86-4 ♀ 232 x 95 x 32 x 1.22 x 2 Vag. open, inf. med., ut. 2 mm faint scars, Pelvis sl. open. Parous.

all hind feet with white fur on dorsal side and dark fur on under side (heel to plantar tubercles, only two (large) tubercles at base of lks 3 long center toe).

The above 4 were jacklighted between 9:00 and 11:45 (dark at 8:30). Saw about 8 individuals but some of them were shy and I couldn't get a shot, I kept seeing the same individuals near the same place, never two, and once shot no other over at that place. Also saw some between 4:45 and 5:45.

One shot ♂ and missed was sticking its head out of a sandy burrow in the cypress grove just below the road. I returned a few minutes later and it was looking at me down in the burrow and let me touch it, but I explored the burrow in the morning and found none. The hunting impression was one of "territorial" animals (2 males, 2 females). Saw no juveniles.

Three of the four shot individuals had green veget-





# Reithrodon

ation in the mouth, Hence three-fourths of their active time eating??

April 20 3 km E Panto Moreno

86-5 ♂ 217 x 90 x 33 x 24.5 100.0g. testes 10, SV 12, epid tubes just visible stomach empty.

86-6 ♂ 231 x 94 x 36 x 26 94 g. testes 8, SV 10, epid tubes just visible, stomach green, fibrous.

86-7 ♀ 214 x 86 x 32 x 26 80g. vagina closed, nipple small, uterus 1 mm no scar, stomach green, late menstrual spot, pelvis not open.

See journal for hunting of above. I saw a total of 6 or 8 individuals, all "adults" (>50g), shot 3 of them. No other species. The quantity of droppings in this part of the state between the road and the railroad is impressive; south of the road near two seeps is even more impressive.

all 3 of the above shot mice had food in the mouth (greencut stems 2 mm or more long).

April 23 3 km E Estacion Panto Moreno:

86-8) spotlighted in brushy area near R.R.

♂ 222 x 88 x 35 x 25 99 g. testes 6, SV 3, epid tubes not visible stomach brown-green.

Eleven cage traps at a seep 8 km 3.6 east of Panto Moreno caught 2 also longi and 2 Reithro:

(#1) at east end of seep, an adult ♀, incisors 2.3 mm, clipped fur on each hip and released, a ♂ also longi caught 3 ft away.

(#2) about 50 m west of above, a big ♀ with incisors 2.5 mm, marked on both shoulders and released.

Both of above were under small isolated Beckham clumps, an also longi was 3 ft. away (also).

There are incredible numbers of Reithro droppings at this seep, around camp, and





Pearson  
1986

29

other places. Surprise to not see more animals  
could night hunting. 3 hours (8-11) with the moon  
up and 3 hours (5-8) after moonset revealed only 6  
or so animals, all with jacklight and none with  
NVGs. Saw an *Alcedo* or *Antiochia* near camp  
with NVG; it scurried rapidly from bush clump  
to bush clump. No wind all night.

The most droppings of R are found on bare or very  
smooth short vegetation around the edge of *Berberis*  
patches.

April 24 4 ~~hours~~ PM (off road to microwave, as last night).  
Full moon but cloudy, no wind, started to rain at  
8 PM (just dark). Stopped 10-10:30 when I hunted  
mostly with NVGs. Oryzomys in a ~~egg~~ hole trap  
set over a *Rattus* hole. Saw nothing with NVG, two  
with jacklight.

No longer raining at 3:00; cloudy calm. Hunted until  
5:30. Saw a half-dozen *Rattus*, all by jacklight.  
Only one grazing out in open, the others very shy  
and in or close to bushes. Shot 1, trapped 1. As before,  
if a mouse was seen at one spot, it was likely  
to be within a few meters of that spot later.  
Saw 2 within 5 m.

The NVGs are no good for finding them under these  
hidden conditions. Only 6 sheep in this camp. Two  
housed oaks on the rock behind camp; heard bark owl.

# 86-9 shot near camp. 211 x 87 x 34 x 25 g. Vag not open, inf. small,

intestine  $\frac{1}{2}$  mm, no scars = nullip

missed  
2.26  
with age 3





25  
 a cluster of *Reithro* holes near the car in a small  
 island of turf at the edge of a juvenile marsh (one side)  
 and buckgrass/*nanus*/*sarcia* on the other consist of  
 29 holes in an oval  $4 \times 10$  yds. 3 yds further on,  
 perhaps contiguous continuous, are 8 open holes  
 within 3 meters, closed holes not counted. Transverses  
 are 55, 65, 65, 65, 50, 20, 20, 50, 55, 50, 50, 40, 40, 50.  
<sup>mm</sup>

Both newly shot individuals had feed in the mouth.

Yesterday I hoop-sampled droppings in a small  
 turf area between the car and the Eucalypt rock.  
*juvencus molliis* on one side and rocky hillside on  
 other with Palo Verde, buckgrass, *nanus* etc. The  
 hoop was  $0.155 \text{ m}^2$ . I called coarse pale spheres  
 hare droppings and irregular "compressed" droppings  
 (usually darker smoother) sheep. Hoop every 3 m  
 along a straight line:

<u># <i>Reithro</i></u>	<u># Hare</u>	<u># Sheep</u>
29	8	4
121	10	15
12	9	22
15	18	4
22	30	47
7	24	12
7	12	22

Today I sampled in same manner in the lower  
 turf area at km 3.6 near the main road, the place  
 where 2 marked *Reithro* reside. The vegetation is





closely cropped turf grasses, interrupted with a tiny clover and a couple of other low herbs, plus scattered junceus, mullen, Berberis, Senecio, and Ribes. Chocoy stump nearby, probably was a wet copse years ago.

<u>Reithro</u>	<u>Hare</u>	<u>Sheep</u>	<u>Reithro</u>	<u>Hare</u>	<u>Sheep</u>
207	14	6	64	10	17
54	8	29	116	15	27
8	1	27	14	11	13
68	7	21	<u>101</u>	<u>10</u>	<u>22</u>

#86-10 adult ♀ caught 4/24 in hole trap in the cluster of turf holes near the car. Brought home alive, another adult seen 30 m away and another shot 30 m farther along the same line.

april 27 2 km E Reithro moraine, shot 10 p.m. ±  
 #86-11 ♂ 193 x 68 x 32 x 23 64 g, testes 6 mm grey plobby; SV 3 mm. <sup>stomach green/brown</sup>

Of the 10 Reithro shot so far, 9 were recorded as having green cut vegetation in the mouth, no notes on the teeth, hence they spend all their <sup>"exposed"</sup> time eating?

In Marful's meadow from 7:55 to 9:40 p.m., one day part full moon, cloudy, no wind. Followed R<sub>2</sub> with NVG<sub>2</sub> as follows:

- #1 at 8:20 an adult in grazed junceus. Fed for 5 min. then hopped 5 m and I lost him, maybe down hole. See map.
- #2 at 8:30 located another adult East of Brick pit. Fed until 8:47, then hopped into edge of Brick pit and ran

skip next p





Leeson  
1986

27

# Rattus (pellets)

Record of droppings of captive # 86-10 adult ♀  
caught 4/24 at 4 km E Perito Moreno

no H <sub>2</sub> O 4/25		first day (24 hrs) 5:30 pm to 5:30 pm	# droppings	wet wt	Dry wt	Remarks
			121	> 5.0 g = .0413	5/06 2.3 g 5/11	Backyard grasses, clover, didn't eat much clover
				> 15.5 g = .0588	4.7 4.7	none produced during day
no H <sub>2</sub> O	4/26	2:30 p.m.	267	> 16.0 g = .0588	4.0 4.0	Breast weighed 78 g. checked int of pellets.
no H <sub>2</sub> O	4/27	2:30	278	> 8.0 g = .0288	4.0 4.0	nice and fresh (small ant. in cage)
WITH H <sub>2</sub> O	4/28	10:00 a.m.	316	> 16.8 g = .0532	5.2 5.2	Breast weighed < 80 g
WITH H <sub>2</sub> O	4/29	10:30 a.m.	246	> 11.4 g = .0463	3.3 3.3	Breast weighed < 75 g
no water	4/30	9:30 a.m.	297	> 11.3 g = .0380	3.9 3.9	Breast weighed < 70 g
no water	4/31	9:30 a.m.	257	> 9.6 g = .0373	3.1 3.1	Breast weighed < 71 g [actually 68.2 g]

May 4-5 Same animal. I put in 46 g of backyard grass at 7:31 p.m., cage covered with newspaper to prevent evaporation. at 8:00 a.m. she had eaten all except

1.4 g = 44.6 g. She weighed 125 - 60 = 65 g. Produced 320 pellets, large over, weighed fresh 19.4 g. 6.2 g dry 6.0 g 6.1 g

May 5-6 Put in 75 g of backyard grass at 7:15 p.m. at 8:15 a.m., 10.4 g remained (cage was covered), hence she ate 64.6 g. She weighed 128 - 60 = 68 g. Produced overnight 19.9 g of moist pellets. This is not 24-hr production, only overnight. She produced another 10-20 pellets before 10:00 a.m. Gave her fresh feed at 10:40 a.m. She ate much of it before 2 p.m.

Here - 74 "typical" hare pellets gathered about a week ago at Marful's weighed 19.5 g = 0.2635/pellet. I collected all the pellets at each of 3 or 4 sites. 19.7 g see later for continuation





off at least 15 m. Heard barn owl.

- (3) 9:00. another adult at the East Brick Pit. ~~He~~ buzzed nervously among the scattered bricks, then 15 m out into flats to feed, then back to bricks. Lost it, probably into hole, at 9:14. Back to car at 9:40. no more seen.

jacklight 9:40 to 10:40. Saw 3, <sup>S, S, T</sup> shot 1 (all along RR.

- (4) more NVG at 10:55. at 11:15 found adult (med. size) at East Brick Pit. Watched him until 11:34, feeding, when he went down hole (marked it with bricks). Returned to car 11:50.

- (5) NVG 4:20. at 4:30 located an adult near #1 in

- (6) juvenile. It went down hole and out again, was approached several times ( $\frac{1}{2}$  m) by a second owl. at 5:02 I probably scared it down a hole. I think they both entered the same hole at least once.

- (7) ~~Back to car~~ at 5:25 saw one (adult) at east side of Brick Pit but lost him promptly. Back to car at 5:47. Horned owl near on fence, then to phone pole along RR.

jacklight to 6:10. Saw some two along RR. Confirms that they are site-specific.

Summary: Found R early and late. Probably 7 individuals (minimum) all within 1 hectare area; none travelled more than 25 m while I was watching.

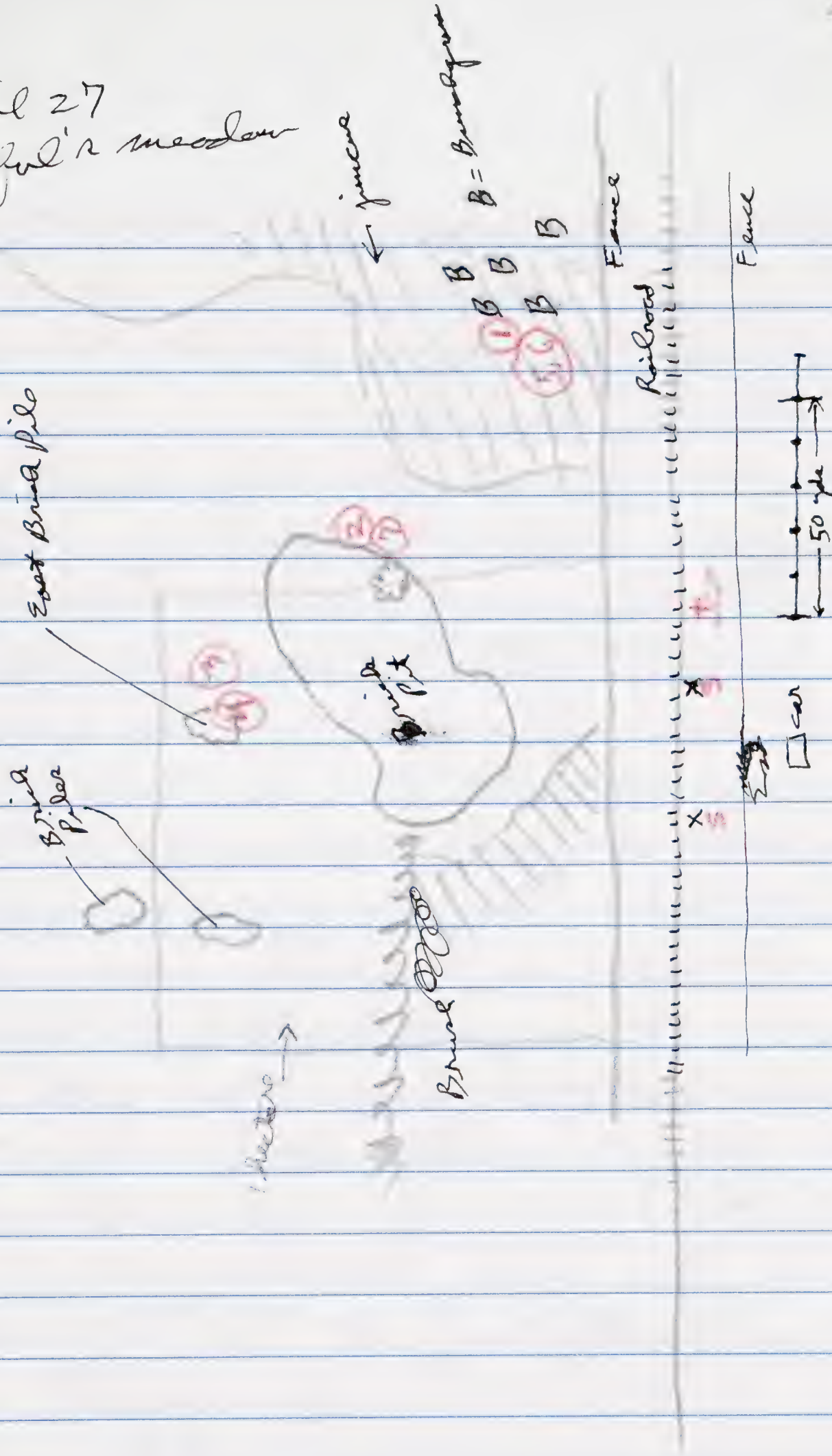
April 29 2 animals shot 2.5 km W of Estancia San Ramon entrance last night:





Peerson  
1986

April 27  
Marful's meadow







# 86-12 ♂ 213 x 88 x 32 x 25 93 g. ~~testis~~ 13, SV 18, epidid tubules.  
 ages 5-6 incisors broken Sots of '300 in sperid easily visible. scars

# 86-13 ♂ 205 x 70 x 33 x 24  $\frac{1}{2}$  90 g. testis 12, SV 18, epidid tubules  
 ages 6-7 incisors broken Sots of '300 in sperid easily visible. scars

The above two were jacklighted between 9 and 10:45 at the border of Ribes/ Berberis bushes along a stream and "meadow" including junceus, 20.5 km km ENE Barilecho. There were 3 others too shy to shoot, all 5 m about 50 m of bush margin. Didn't see any until about 9:30-9:45, still no moon.

Yesterday afternoon set 9 cage traps baited with young green grass along the south side of the San Ramon meadow. Incredibly numbers of bare droppings. no latrine droppings on the right side. Says something about longevity of droppings? A modest number and some open holes on the left side.

NVG in this meadow from 7:30 (dark, cloudy, calm) to 8:35 (pitch dark, cloudy, calm). Saw only one skunk (at 8:10). Then jacklighted at the 2.5 km place. Then NVG again 11:15 to 12:30.

From 11:50 to 12:20 watched a med. adult on the east side of the road near camp near a Berberis bush. It moved no more than 5 m in the half-hour, moon up but behind clouds, calm. It looked like it might have scent - marked 2 burrow openings with its stomach. Then another loop around the meadow - nothing.

In the morning, nothing in the 9 traps. Episcot





the 2 burrows (1 foot apart) "marked" by the  
beetles. no droppings inside, a dry soft grass  
nest about 3 feet inside one of them, about  
1 foot below surface. a layer of pumice about  
8" down.

One bunch grass at the edge of the meadow is  
flame-staked, base not at all colored, = ? *Stipa binnulii*?  
Then farther out lots of taller clumps with pale rose-  
lavender bases, not grazed, = ? *Stipa speciosa*?  
and a few clumps of completely grazed blue-green  
bunch grass. Part of the carpet is the little Rosaceae  
with highly dissected leaves = *filare*  
of San Ramon

Summary: Nothing in the meadow; some  
adults around bushes.

April 30 2 km E Estacion Rento mow with Adrian.

Trapped in cage traps at Ribes clump S. of RR:

#86-14 ♀ 227 x 98 x 35 x 24.5 69 g. uterine 1½ mm white, no scars,  
age 3 pelvis not open. Chromosomes  
meiosis 2.48 etc to Milton Galardo

#86-15 ♀ 232 x 94 x 75 x 26 65 g. uterine 1½ mm white, no scars,  
age 3 pelvis not open. Vagina was open.  
meiosis 2.32 chromosomes to Milton Galardo.

Went out with NVG & sharing with Adrian, no moon,  
breezy, 8:04 to 9:50. Saw one <sup>in</sup> junco near fence &  
plastic at 8:14; at 8:30 2 in junco, <sup>(1 m apart)</sup> meadow, quite  
skittish, windy clear. Touched one with nose.

at 9:00 saw 1 at east edge of bush pit, Adrian saw it  
or another one. 9:15 at east edge of pit (same one?);  
9:20 one east of there in junco (same as one of pair?);  
9:40 a smallish one by post hole at fence (different





down the hole; 9:50  
returned to car.

at 10:40 jacklighting  
to RR for 10 minutes  
saw 2 (1 at Culvert  
S side of tracks and 1  
10m east of the Beech  
clump where I stopped  
one earlier in evening.

at 3:05 a.m., windy, clear,  
half moon, saw one (eagles)  
on N side of RR and one strutting  
one at the junction white plastic  
4:15 returned to car.

Summary: Saw 7 and traffed 2 (#8 and \*9), all ~~about~~ could be included in a 1 ha. rectangle. Windy not as good. Saw none near the brick piles.







Leaven  
1986

33

## Railroad (cont.)

May 2 2 km E Perito Moreno, counted pellets from the  
bush at the Bush Pit toward the SE, every 3 meters,  
area of hoop:  $0.155 \text{ m}^2$ :

Railroad	Hare	Sheep
43	34	93
58	4	13
7	34	85
1	41	53
0	21	16

May 3 Sat.

± 86-16 ♀ 2 km E Estero Perito Moreno. Caught by Milton Gallo  
age 4 incisors 2.35 in steel trap into burrow. A tuco from close by had  
attacked it, pulled out one eye, then buried the whole  
animal with dirt pushed out of a burrow:

♀ 227 x 83 x 32 x 26 80 g. vagina closed, vag. mod. ut. white,  $1\frac{1}{2}$  mm,  
no scars, pelvis not open,  
caught along the fence on the road side of the RR, about  
50 yds east of the car, V

my 9 cage traps and Gallardo/aquiles 39. Sherman  
on mountain Hill, still no Railroad.

May 3/4 Went back alone to 3.6 and 4 km E Perito Moreno  
to flashlight. Clear, calm, occasional breeze. With  
NVG from 7:45 to 8:39 in the turf at 3.6 km. Saw  
one Railroad at the east end among grass, boulders  
and bush. Could not identify it. It was stillish  
any marks on it  
but no clear view. It pogoed a couple of times  
and disappeared about 5 m away. Pogo = a  
vertical hop one to 6 inches high, usually at





the start of a scuraper of several meters.

Then jacklighted 8:40 to 9:20, clear column, no moon (moon rose at 5 a.m.). Saw one R at same big clump of bushes along the fence at the edge of the swampy place. none around the campsite at 4 hrs.

- Then NVG at Marful's meadow (2 hrs. PM)
- ① 9:30<sup>35</sup> to 11:20 (column clear). Picked up one at the plastic / juvenile place at 9:50 and followed it through juvenile and turf until 10:19 (29 min.) when it went down one of the family of holes in photo about 8 yards from the fence at the plastic.

- after rounding the Brick pit, picked up one
- ② in the middle of the meadow east of the Brick Pit.

Followed it for 20 minutes when it met another

- ③ one (about 2 m away) who ran off toward the Brick pit; the ? original one? a minute or two later scurried off to the family of holes at the edge of the Brick Pit near the Bush and entered one of them. a  $\frac{1}{2}$  minute later one scurried

across the Brick Pit to the Bush, maybe the same one, after emerging from another hole at 10:45

- ④, ⑤ promptly picked up two more in the plastic / juvenile, definitely a different pair than the Brick Pit pair. I went to get measuring pole and then followed one of them for about 15 min. Then it met another one (the 6 notes) and they both disappeared at 11:10 in a region of many holes. 22 yards in





from the skull along the fence.

jacklighted along RR for 10 minutes at 11:20.

Saw black cat, 1 Pentthro at the west bush.

NVG 4:15 a.m. to 5:13. Calm, dark, clear, (moon came up 5:00 but low clouds).

(6) the Brick Pit juv. It promptly went down a hole, then emerged and ran to the Bush. Then promptly

(7,8) found two at the skull juv. They came into contact, then both disappeared, probably down holes.

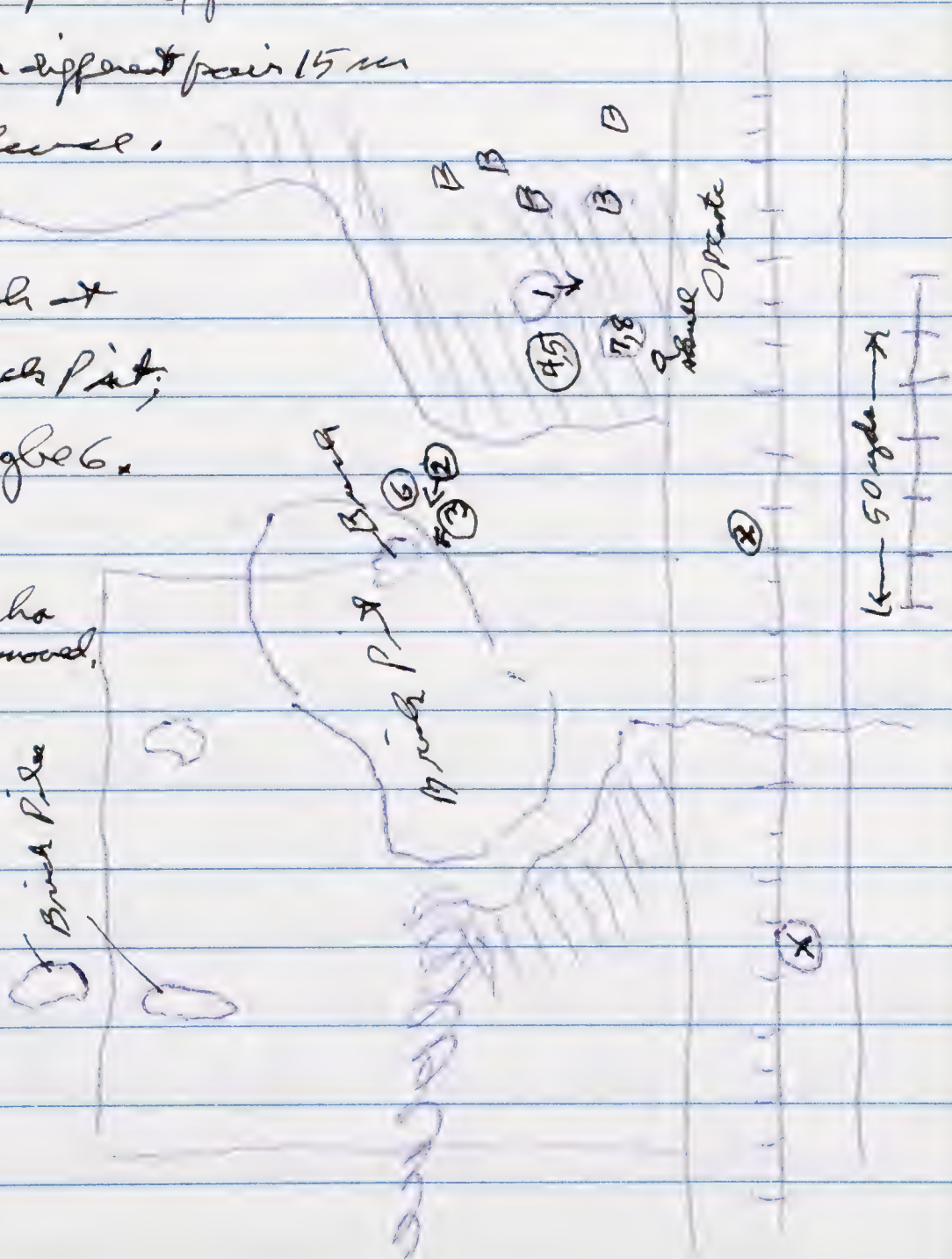
jacklighted for 10 minutes along RR. Saw one on N side of RR.

Summary: One pair in the plastic/juvenile meadow, possibly a different pair 15 m away, nearer the fence.

a different pair around the Bush at the edge of the Brick Pit; = 4 individuals, maybe 6.

also 2 along RR.

= 6 or 8 in about 1 ha not counting those removed.







# Reithrodon

- #86-17 shot 12 km ENE Barulela (east end of runway of private airport).  
 incisor 2.52 tooth age 5  
 ♀ 242 x 90 x 34 x 26 88g. vagina open, nipple med., clear uterine scars but follicle not open. mesenteric fat. Diameter of eye 8.35, 8.55.  
 #86-18 ♂ 232 x 87 x 34 x 25 1/2 101g. Testes 11, white, flabby; SV 12 (scarcely not functional), epididymus conspicuous, lots of zona; lots of cap. fat. eye 7.95, 7.60. Testes 7 1/2 mm, grayish, flabby.  
 incisor 2.48 tooth age 6  
 #86-19 ♂ 220 x 82 x 35 x 26 91g. SV 8 mm, epididymus not visible.  
 incisor 2.25 tooth age 4

all 3 of the above shot individuals had green vegetation in the mouth. They were jacklighted between 7:50 and 9:25 p.m. in grazed bunchgrass/turf between rosette mesquite and Berberis clumps. all were in or within 1 m of bushes. Saw 2 others, 2 or 3 times at same bushes, but they were too shy to collect.

The ♀ captive handler fed with both hands, chewed it in end-on. She sniffed a ♂ corpse all over when it was put into her cage; ignored a ♀ corpse.

May 8 Four samples of back-yard green grass after drying, partly in oven, had dry/wet ratios of .207, .222, .223, and .225 later 19.9, .222, .221, .225 av. .2169

May 9 Captive 86-10 ♀ 72g eats grass stems end on, holding them in both paws; they disappear at a rate of 5 cm. in 10 seconds. The cage is 25 x 20 x 15 cm high  
 To Estancia El Condor in late afternoon. Lower line people working at our old campsite at 22 km ESE Barulela, so drove about 2 km farther. Good tufted Praderas on both sides of the road, extensive, with scattered Berberis bushes, Ribes, Chaenactis, and





rosa mosqueta. Lots of scattered R droppings around the clumps of bushes, a few clusters of holes there, and busy looking holes in weedy turf on the north side of the road close to the road. Lots of ~~scat~~ have droppings, night mostly clear, no moon, occasional breeze.

7:30-8:00 NVG along road strip and ~~pradera~~ <sup>south</sup> ~~south~~ of road saw nothing (3 hours).

(12) 8:05-8:30 NVG along road strip. Saw 2 adult R 30m east of car. Photos. One approached the other, almost or actually contacted but not muffle, one immediately ran off. Using a red diffuse head lamp in addition to NVG increased detection because it gives eyeshine, its glow did not seem to bother R.

(3,4) 8:30-8:55 - NVG another sortie (about 150 yds), more photos x Saw 2 different Rs (100 yds and 50 yds east along road strip).

(5) 9:05-9:40 With flashlight along road strip and south of road. Saw 2 north of road, at least one of them new (150 yds), none south of road. One of them went down a big slanting hole and looked at me from down the hole.

9:45-10:30. NVG along road strip and in meadow south of road. Saw 3, at least 2 of them old friends none 5 yds. Note that at least 3 or 4 of the 5 or 6 individuals allowed me to within 4 feet to photo.



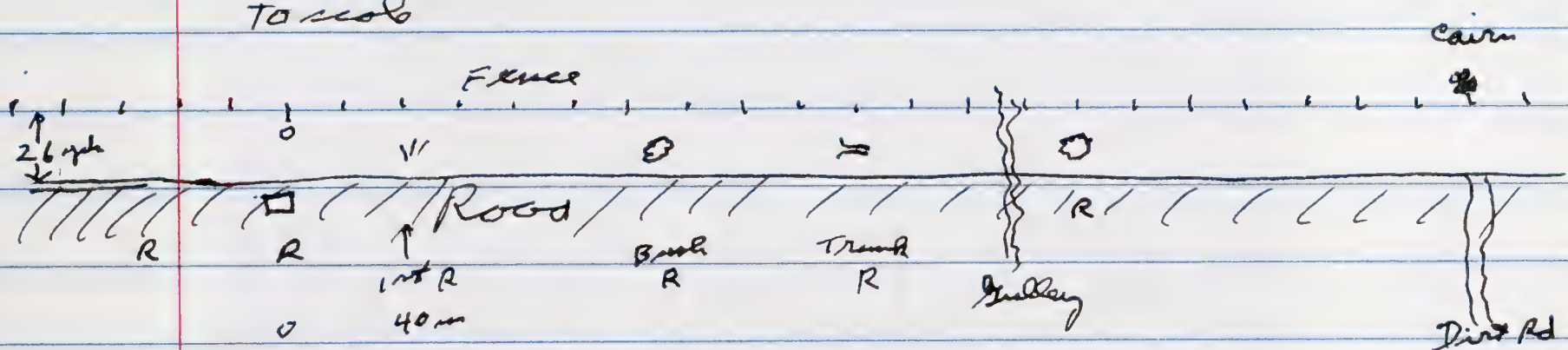


10:30-11:15 NVG. Saw 3, all old friends at same place along road.

Occasional breeze, mostly calm, no moon. Probably 6 individuals along <sup>240 yds (see below)</sup> 150 m of turf/wetland road strip. None moved more than 15 m while I watched. Some gave 1" pogo hops. Most entered holes freely. Heard no owls, no obvious cliffs or roots nearby.

May 10 Back to the El Condor Reith's photo place at 5:00. It is 2.8 km beyond the Condor driveway.

To scale



26 yard-wide strip between fence and road, turf and *Senecio* and *bracken* and *acacia*. Yesterday I saw 5 or 6 individuals along 240 yds of linear habitat.

This night breezy to windy, a few sprinkles until 8:00, then partly or mostly clear; no moon.

7:30 to 8:10 - NVG. Saw 4, all previously seen; photoed.

8:10-9:15 - NVG. Windy clear. Saw 5: 1 where car was yesterday, 1 30 m west of there, 1 at east end of gully, and 2 old friends. Saw big fox in middle of area.

9:30-10:05 - jacklighted, saw one at west end and 1 at Gully, but none of the regulars. One big shrew in the middle of strip.

10:10-10:40 - another go-round with jacklight. Saw 3, all disappeared promptly, 2 of them old friends.





Pearson  
1986



May 9, Estancia Condor

Rethelon







Pearson  
1986



May 9, Estacion Cordoba





Pearson  
1986



Red-throated. May 9, Estancia Condor






Seems as though the open-country ones won't tolerate the jacklight.

Combining yesterday's and today's: at least 7 individuals in 300 yards of linear habitat; all rather evenly spaced (except for the two that bumped each other yesterday). Lots of hares.

May 11

When the captive ate up all her green grass this morning I offered her dry alfalfa pellets (she ate a couple), potato (she ate a little), apple (she ate a little more), clover (ate stems but left leaves), lactuca-like tall dandelion (ate it); her favorite when I put in a mixture of green grasses & seed heads seemed to be dry seed heads of the bearded barley grass .

Then she switched to green grass, ate even faster than yesterday's 10 cm in 20 sec, something like 10 cm in 15 sec. Her body temp. yesterday at 10 a.m. and 3:20 p.m. were  $34.6^{\circ}$  and  $35.4^{\circ}$  (air  $20^{\circ}$ ), alert & competent both times. Today after an active period at 9:30 a.m. was  $39.0^{\circ}$ ; room  $19^{\circ}$ .

39 fresh fresh droppings collected on Saran in a closed cage within 10 or 15 min of defecation weighed 2.1 g when dry = ~~0.85~~ 0.6, 0.6 - dry/wet ratio = 0.286

elcider

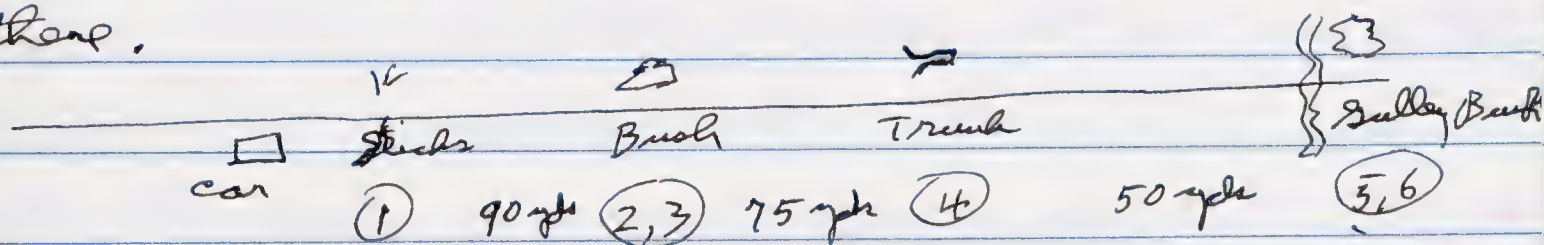
Photoed R at the road strip 7:30 to 10 p.m.:

7:30 - 8:57 NVG. Nothing seen until a little before 8:00. Night clear, calm, cold, new moon set about 8:00. Then saw 2 within 5 m near the Gully Bush, 1 at the Trunk, and 2 at the Bush. These two





were grazing about 2 m apart, surely were aware of each other. Later saw one briefly at the "sticks" but did not see any ~~at~~ west of there.



This makes at least 6 individuals in 215 yds of linear habitat.

When photoing, the flash and click of camera does not seem to alarm them, but the high-pitched whine of the recharging flash usually makes them run away. When trying to noose one with fishing pole + coffee wire noose, the moment the noose touched him, he bolted off faster than I had ever seen one run. The surprising thing was that his footsteps were loud enough to hear easily - perhaps a signal? Once again, a mouse fired at with .22 and missed failed to run away.

9:00-10:00 NVG and gun. ~~Shot~~ Saw 3, shot the following 2:

#86-20 ♀ shot at "Trunk", ♀ 196 x 75 x 33 x 25 67g. Vagina not open, nipples not seen, Uterus completely nullip.

#86-21 ♀ one of 2 living at "Bush", 216 x 86 x 33 x 24½ 97g.  
Vagina not open, nipples not found, Uterine scars. Lots of recent fat. Stomach green green

Both of these had green stuff in mouth, as had all except one of the preceding shot individuals - and



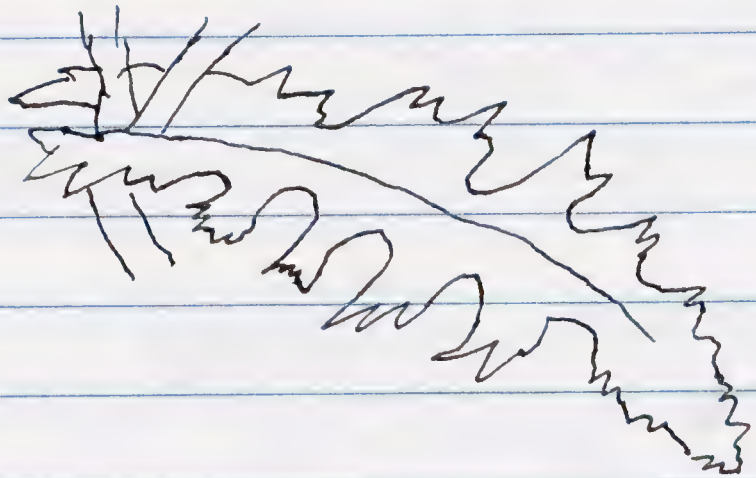
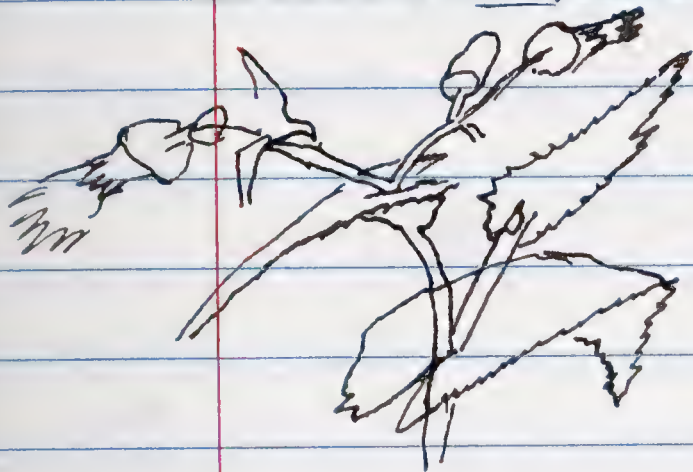


Pearson  
1986

Rattredon

41

that one maverick I failed to record yes or no.  
May 13. Tried the captive overnight with grass, "dandelion",  
and 2 rosa mosqueta fruits. It ate one of the  
fruits but did not touch the other. It did not  
open the seeds, whereas Oryzomys does open the seeds.  
It did not eat fresh bamboo leaves from the floor.



She definitely likes the leaves + blossoms of this  
"dandelion". Some plants have much more highly  
diverted leaves;

Captive ate the little Rosa that is so common  
in Marjory's meadow, and ate a stem of gambusia  
holthuisi up to the dead truncated tip. Also ate the  
little fork with lavender dying leaves. Did not eat  
bamboo leaves.

May 14 From the big thicket at Marjory Meadow:

#86-22 Field number #1 (trapped along fence).

incisor 2.18  
mandible 3

♂ 239 x 97 x 34 x 27 78g. Testes 8, white firm; epididymus not visible,  
Before 8 p.m., mesenteric fat 6 mm, Kidney  
no grass in mouth  
Eye 7.9 mm diam.



#86-23

2.42  
4

Field no. 9 10:15 P.m., white Plastic junco

♀ 224 x 93 x 34 1/2 x 25 97g. Vagina not open, mp not fat, uterus  
1 mm pink, no scars, pelvis not open.  
grass in mouth Lots of mesenteric fat.





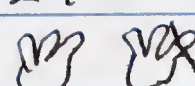
Peck  
1986

42

# Pentthredon

86-24 Field no. 17. Brick Pit north.

2.34  
5

♀ 234 x 89 x 34 x 27  $\frac{1}{2}$  93 g. Vag. not open, nipple small, Very faint uterine scars, pelvis not missing RMB  grass in mouth open

86-25 Field no. 5. 9:15 p.m. First bush east of gully under RR

2.25  
4

♂ 225 x 87 x 34 x 25 87 g. Testis 7 mm, SV 4. eye 8.02 diam <sup>S. side</sup> grass in mouth

86-26 Field no. 12. 4:50 a.m. 15 yds east of RR track bush.

2.39  
4

♂ 239 x 92 x 35 x 26 116 g. Testis 7 mm. flabby, white, epidid tube not visible, SV 9 mm x Ear-tagged wt. 82 ± 824. Has all teeth, Eye 8.44 diam x grass in mouth

86-27 Field no. 11 4:10 a.m. Brick Pit East.

2.39  
4

♀ 232 x 90 x 35 x 25  $\frac{1}{2}$  99 g. vagina closed, nipple small. uterine scars but no scars. Pelvis not open grass in mouth

86-28 Field no. 6. 9:30 PM One of 2 near together.

2.45  
4

♂ 231 x 90 x 35 x 27 103 g. testes white flabby, epidid tube not visible. SV 12 mm. grass in mouth

86-29 Field no. 8 SW edge of Brick Pit. 10:07 p.m.

2.15  
2

♂ 225 x 82 x 35 x 26 83 g. Testis 6  $\frac{1}{2}$ , white flabby, SV 4 mm. <sup>vagina closed, int. not found.</sup> grass in mouth

86-30 Field no. 2. 8:45 p.m.

2.50  
5

♂ 234 x 94 x 34 x 25  $\frac{1}{2}$  101 g. Testis 8 mm white flabby, lots of fat SV 8 mm epidid tube not visible grass in mouth

86-31 Field no. 6, middle of <sup>6a</sup> 9:45 P.M.

2.30  
4

♂ 230 x 95 x 34 x 27  $\frac{1}{2}$  84 g. Testis 5, white, SV 3 med. fat. grass in mouth

86-32 Field no. 10 mid-meadow 10:26 p.m.

2.25  
4

♀ 219 x 84 x 33 x 25 86 g. Vag closed. nipple tiny tiny, uterine  $\frac{1}{2}$  mm multiparous, some fat, not as much as some. grass in mouth





Pearson  
1986

Reithrodontomys

43

86-33 Field no. 3, 8:55 pm,

2.28  
4

♀ 225 × 85 × 35 × 26  $\frac{1}{2}$  93g, vag. closed, rips not bared, ut.  $\frac{1}{2}$  in white, no scars, quasin mottle

86-34 Field no. 4, 9:00 pm, Brick Pile E,

2.23  
5

♂ 212 × 82 × 32 × 25 82g. Testes  $8\frac{1}{2}$  mm white, SV 11 mm, grass in mouth.

Dry weight of 60 sheep droppings from warful meadow = 20.5 - 1.3  
 $20.5 - 1.3 = 19.2 \text{ g} = 0.320 \text{ g/pellet}$

The above collection with NVG and dim red headlamp between 7:30 - 10:40 and 3:30 - 4:55 a.m., cloudy, dead calm, below freezing. Heard no owls. Saw no other species. 21 traps baited with green grass and *Lactuca doudoliana* caught 1 *Reithro*, nothing else, although a couple of cage traps were spring-empty.

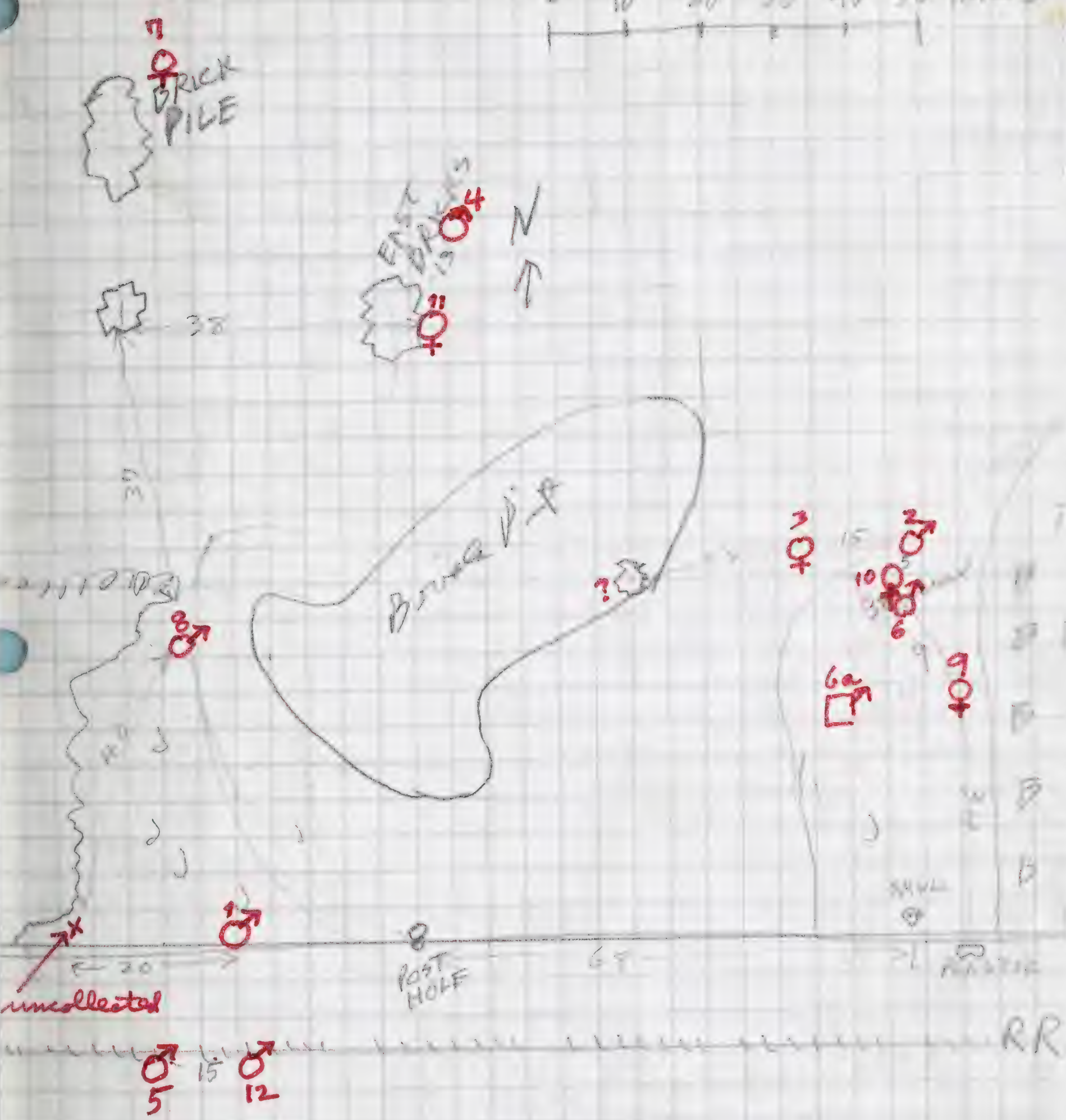
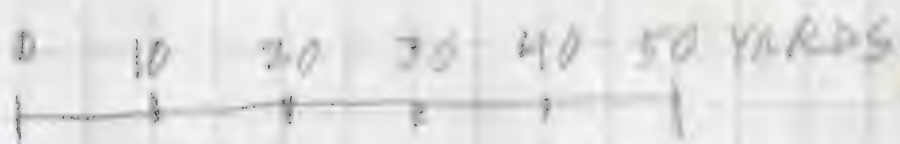
Also 2 recaptures of *R* marked in November. Collected samples of turf, one from 3.6 km, mostly grass, and 1 from Warful's with much "dissected rose" = filaree.

4,820 mm of broad-leaved fresh backyard grass stems weigh 3.2 g. To eat 70 g of them at 10 cm in 20 seconds would require 5.86 hours (106 meters of broad-leaved grass stems up to 7 mm wide). A recalculation and recalculation of same data gives 5.72 hrs.

Dissecting out all green vegetation (90% *Holcus lanatus*, 5% white clover, 5% other narrow-leaved grass) from a 36,075 mm<sup>2</sup> (= .0361 m<sup>2</sup>) sample of turf from the turf at 3.6 km E PM where some







12 13 14 15 16 17 18 19 20 21 22 23 24 25 26  
coordinates

map to scale of the 13 animals collected on the right of May 13/14 and at least 1 animal known to have survived. numbers ~~7~~ 7 and 12 were marked in 1985





of the pellets were carried out gave 15.0g  
"fresh" weight and 4.1g dry weight = 415g/m<sup>2</sup> fresh  
or better 114 g/m<sup>2</sup> dry. A second smaller sample  
from same turf (75 x 80 mm) gave 3.3g of green  
"fresh" (= 550g/m<sup>2</sup>) or 0.8g dry (= 133g/m<sup>2</sup>) dry  
or total sludge on about 1 square foot, = 0.0929 m<sup>2</sup>





Pearson  
1986

46

catalog

1 km E

Estacion Puerto Moreno, 910 m, Rio Negro, Argentina

Nov. 22, 1986

+ blood.

7344 ♀ *Histolus montanus*. + blood, 118 x <sup>50</sup>54 x 7 x 27 x forelimb 48 15 g. 1 fetus 21 mm CR. no fat.

3 km W RAHUÉ

W Rahue, Neuquen, Argentina

Nov. 27

7345 ♀ *Phyllotis darwini*

9 small emb.; considerable mammary tissue

247 x 118 x 28 x 25 62 g.

7346 ♀ *Abodon pantho*

large testes

148 x 54 x 20 x 14 x 27.5 g.

7347 ♂ *Abodon longipilis*

testis 12 mm

185 x 75 x 24 x 16 42 g.

7348 ♂ *Oryzomys longicaudatus*

testis 4 mm.

195 x 110 x 27 x 15 22 g

Estancia Campo Grande, 5 km N Las Coloradas, Neuquen

Nov. 26

7349 *Conopatus*

pickup skull

7350

"

pickup skull

32 km N union de los Andes, Neuquen

Nov. 27

7351 ♂ *Dusicyon culfaeus* DOR

3 km W Rahue, Neuquen

7352 ♂ *Phyllotis darwini* 240 x 110 x 30 x 26 70 g, testes 12 mm

7353 ♂ *Rattus norvegicus* 325 x 152 x 38 x 20 170 g. testes 22 mm

6 km S Puerto Fui, Prov. Valdivia, Chile

Dec. 11

7354 ♀ *Gepus*

no emb.

136 x 42 x 18 x 11 26 g

7355 ♂ *Ako. longi* (pale)

testis 3 mm

181 x 82 x 25 x 15 30 g

7356 ♀

"

(dark)

no emb, parous

208 x 91 x 27 x 18 49 g.

7357





Pearece  
1986

47

Catalog

12 km ESE Paso Tromen, neuquen, argentina  
Dec. 13

- 7357 ♀ Akodon sp, nullip.  
142 x 60 x 21 x 16 19g.  
7358 ♂ " " testis 11mm  
134 x 53 x 21 x 15 18g.  
7359 ♀ Anliscomys micropus testis 5mm.  
165 x 68 x 26 x 26 23g.  
7360 ♂ Akodon longipilis testis 12mm  
173 x 73 x 25 x 16 40g.

Silve Calal, Dept. Silve Calal, Japampa, argentina.

Dec. 19, 1986

- 7361 ♂ Onychomys leucogaster 249 x 133 x 27 x 25 45g.  
7362 Elegmus? 176 x 94 x 22 x 16½ 16g.

Dec. 18

- 7363 ♀ Galea on grid. 2 resorbing emb.  
170 x 0 x 37 x 21 148g.  
7364 ♂ Akodon sp. testis 5mm.  
126 x 48 x 21 x 14 10g  
7365 ♀ Calomys eaten vagina open, parous.  
— x 66 x 18 x 15  
7366 ♂ Ctenomys 260 testis 11; SV 8 not breeding  
165 x 75 x 30 x 6 145g.  
no emb. lactating  
7367 ♀ Marfusa 205 x 101 x 7 x 21  
7368 ♀ Ctenomys 215 x 61 x 30 x 6 100g. parous, lactating

Dec. 19

- 7369 ♂ Onychomys testis 7mm; SV 12  
200 x 110 x 26 x 15 30g  
7370 ♀ Calomys prob. fligatus testis 5, SV 14  
97 x 46 x 16 x 12 5g  
7371 ♂ Akodon sp. testis 5, SV 14  
117 x 47 x 21 x 13 10g  
7372 ♀ " nullip.  
120 x 51 x 20 x 12 9g  
7373 ♀ " nullip.  
122 x 49 x 21 x 13 8g  
7374 ♀ Onychomys 5 emb.  
210 x 106 x 26 x 16 29g.  
7375 ♀ Shinomodontia Herbs; ear, huc.  
179 x 91 x 21 x 18½ 16g.  
7376 ♂ Akodon sp. testis 6.5mm; SV 8  
167 x 66 x 22 x 17 24g. with crotchets  
caught by legs  
7377 ♀ Galea 163 x 0 x 35 x 15 92g. no emb.





Dec. 20

body in formal

testis scrotal. Tail wide but not fatty.

7378 ♂ *Seiodelphys*

220 x 88 x 17 x 24 76g

7379 ♀ *Akodon varena*

167 x 70 x 24 x 16½ 27g. no scrot.

skull only

7380 ♂ *Akodon* sp.

146 x 65 x 20 x 13 16g, testes 8 x 5 x 6





1986 (fall)

Catalogue  
# 7381 - 7405

*is 1987  
see preceding 2/11*

Argentina





Pearse  
1987

# Catalog

5 km NW Nahuel Huapi, neuquen, argentina  
april 17

shel only  
7381 ♀ *Phyllotis* nulliparous 210 x 108 x 25 x 27 44 g.  
shel only  
7382 ♂ *Abodon longi* testes 2 1/2 mm white 170 x 67 x 24 x 14 28 g.  
shel only  
7383 ♂ " " 167 x 73 x 24 x 15 26 g.

## Bariloche, Rio Negro

april 18

shel only  
7384 ♂ *Oryzomys longicaudatus* testes 3 mm, white 201 x 110 x 27 x 16 1/2 21 g.

5 km NW Nahuel Huapi, neuquen

killed april 19 (caught april 17)

shel only  
7385 ♀ *Reithrodon* vagina not open, uter not (prod), uterus nullip, testis 264 x 71 x 32 x 24 51 g, no foot. not seen  
shel only  
7386 ♀ *Auliscomys* nipples med., vag. closed, no scars seen, 234 x 108 x 27 x 20 61 g. no foot.  
shel only  
7387 ♂ *Phyllotis* testes 3 mm white 237 x 120 x 31 x 25 54 g.

7 Cerro Leon, 15 km ENE Bariloche, Rio Negro  
shel only  
7388 ♀ *Elgmodontia* 150 x 71 x 22 1/2 x 15 14 1/2 g. interu-  
shel only  
7389 ♀ *Abodon pantho* no foot 121 x 50 x 18 1/2 x 14 12 g. uterus nullip

## Refugio Neumayor, 1500 m, 13 km SSE Bariloche

april 29, 1987

7390 ♀ *Chalchicomula* stomach 12 grams. uterus 198 x 58 x 27 x 17. 75 g with scars  
7391 ♀ " stomach 7.2 g. nullip.  
7392 ♂ " testis 6, white, SV2 163 x 50 x 24 1/2 x 16. 47 g.  
9393 ♀ " uterus fairly wide, no scars (only) visible 188 x 55 x 26 x 17 63 g. sl. open

may 3, (captured april 29 as above)

shel only  
7394 ♂ *Chalchicomula* testes 4 1/2 mm white SV2 167 x 50 x 25 x 15 x 53 g. some foot.  
shel only  
7395 ♂ " testes 4 mm white, SV2 177 x 46 x 26 x 16 1/2 56 g.  
7396 ♀ " uterus, follicles not open 177 x 50 x 26 1/2 x 16 67 g. nullip.





Pearson  
1987

2

Catalog

2 km W Bariloche, Rio Negro, Argentina  
May 4, 1987

7/397 ♂ *Alouatta palliata* 150 x 65 x 22 x 16 14½ g. testis 3½ mm SV 2 mm

1st Summit, 20 km NE Bariloche, Rio Negro,

May 10, 1987

7/398 ♂ *Alouatta palliata* 155 x 77 x 22 x 17 22 g. testis 7, SV 10. no fat

7/399 ♀ " 160 x 70 x 22 x 15 27½ g. lactating no fat

Dead in live trap. Testis 4½ white, SV 3½

7/400 ♂ *Eumeces* 180 x 67 x 25½ x 21 38 g. no fat

7/401 ♀ *Elgmodontia* 176 x 82 x 24 x 17 29½ g. lactating, ut with 6 scars

7/402 ♀ " 169 x 78 x 22 x 16 23 g. 9 fetuses imp. 7 mm CR med.

May 11 (caught May 10)

Vagina not open

7/403 ♀ *Eumeces* 180 x 68 x 25½ x 21 38½ g. nullip no fat

7/404 ♂ " 192 x 76 x 27 x 22 48 g. testis 5 mm white SV 3 no fat

7/405 ♂ *Rhombophryne* [200] x [75] x 31 x 24 76 g. Testis 8 mm SV 5, epididymus not viable.





1986 (fall)

Journal

Argentina





Pearson  
1986

49

# Journal

Vina del Mar, Chile  
Oct. 19, 1986

Oct. 19

Drove up the coast to Quintero, then inland to Nogales, then back via Quillota and Con Con. Sunny + warm. Incredible numbers of Calif. poppies in bloom. Some picnic in the city park of Quintero, which is a picturesque rock-rimmed sandy lagoon like Carmel, with Monterey cypresses and Monterey pines.

Collected a nectar sample from a big bromeliad about 10 km SE Quintero. Greenish yellow blooms, lots of nectar, many small flies on spikes, but dropping on spikes, saw no hummingbirds all day. Saw many other ? similar ? bromeliads, but only a couple of them were in bloom, the rest had dried inflorescences. Lots of them at the zoo outside of Vina del Mar.

The road from Quintero to Nogales, mostly unpaved, goes over some brush-covered hills with scattered fambro clumps maybe 8 to 10 feet tall, rather scraggly, and almost all of them dead dead. Still had traces of flowers, probably last year's. Saw about 2 live clumps, a few young plants up to 2 ft tall coming up under the one clump we stopped to inspect.

When we returned to Vina, drove out to the zoo, which is a drive-around arrangement with mostly native vegetation. The Botanical Garden seemed to be mostly rose gardens, manicured lawns, etc.





1986  
Pearson

50

- Oct. 22 Went on group tour from the Congreso in Viña del Mar, Chile, to Parque Sa Campana. Hiked with Sage and others up the Huenul Trail (hot, dry, scrubby) looking for Puya. Found only one patch in bloom, a small-flowered violet species, and could get only a very small amount of nectar from them. People who went on the Cascada Trail say they saw 3 birds of Puya. Reize, a German, good observer, says he has photoed a hummingbird at Puya.
- Oct. 25 Anita & Sage went back to the Puya at 10 km SE Quintero and got more nectar and saw Blackbirds sitting on the flowers. Took the train from Santiago to Osorno.
- Oct. 26. Osorno. Missed the bus to Bariloche. Doug Kelt showed us his collection of the Instituto Profesional; skulls not cleaned yet.
- Oct. 27 Bus to Bariloche. Less snow than usual. Everyone says it was a mild winter. Last week was very hot in Bariloche.
- Oct. 29. Drove out to Estancia El Condor to my Reithrodon site along the road. The holes are still there but almost no droppings. Techint was stringing electric cables right there, so we did not camp. Drove instead to Est. La Frayva and camped at the usual place. Very few droppings. Hunted with night vision goggles for about an hour (no moon) and saw only one very small





Reithro along the fence between weeds + turf.  
Took some flash photos of him.

Oct. 30 La Fregua. Night cold; maté kettle in car froze almost solid. After sunrise, about 24 condors were soaring high over the cliff.

Nov. 1 Drove up the back side of Catedral looking at bamboo; no blooms. Trees in the meadow at the east end of the ski area.

Nov. 2 Visited the marked bamboo clumps on Cerro Otto. There had been much cutting of coña and lenga, but they left our marked clumps. The clump in the open meadow had no new shoots and ~~some~~ <sup>only two</sup> yearling canes. The clump in the woods had numerous new shoots and survival of about 14 <sup>(including some broken off)</sup> of ~~the~~ last year's 32? shoots. On two plants where leaves had been marked, almost no new leaves since the last marking.

Nov. 3 Two horned owl pellets collected by Patricia Fiers at Fortín Chacabuco on Oct. 14<sup>th</sup>, 1956:

Beetle.	(2) Beetle
(1) Old Reithro	juvenile hare
juv Reithro	
Oryzomys	

Nov. 4 Went bambooing to Ilo Ilo with Anita + Isabel Gallopin. Clumps B1 and B2 were undisturbed and little changed. Counted leaves; the marks are holding up well. Have not seen any bamboo blooms so far this year. A chusco came up (again) to examine our notebooks and equipment. Scoted brown in full bloom.





Nov. 6 To La Veranada with Anita + Isobel. Looked at bamboo. a lot of mire had been clear cut on the east side of the road, right up to our marked camp E2, but it was not disturbed.

Sacramento Moreno from La Doñana in Spain dropped in, then dinner with Adrian Morgan and his family. He is continuing his preparations for an Environmental Education Camp.

Yesterday in the museum in the Civic Center two young men were studying the mouse exhibit and I heard one use the word "Cricetidos". It was José Luis Puga, a Parkguard of the XIV Promoción.

Nov 7-16 Barilabo - bamboo

Nov. 16 To Estación Perito Moreno with Anita, in P.M., walked up to the cover SE of the lake and saw, as Christie had said, a pile of droppings on the floor of the darkest cave, under a shallow, rough, roofed out place in the ceiling, maybe a quart of droppings; definitely brown, not black, too big for Myotis, probably H. histiotus. Went back at 11:30 p.m., nothing in the cave, but a couple of bats flew in and around the mouth of the cave while we were inspecting. We sat out front for about 1/2 hr, saw a few more bats, then checked in the cave again (nothing). Left about 12:40 a.m.

More about 1 day past full. Hunted for Reithrodome with the NVGs near + in Margul's turf and along the railroad - In about 2 hrs saw nothing.





Heard barn owl flying down over the flats, and also up at the cave.

A dozen or more Condors came in to the cliff in the evening.

Nov. 17 Floo Floo lambeo

Nov 19 Left 9 a.m. to Castaño Overo, Talked with Siegfried Rubulus - very warm October, cool November, nobody at the campsite along the river, measured lambeo yearlings leafing out, new shoots just up. Afternoon clouded up.

Nov. 20 Went up to the trapping grid. It is about 150m beyond the third elbow of the zig-zag of the jeep road above the log bridge. This is also the elbow where the road to Parade Nuevo takes off to the north. Anita hiked up to the Campamento on the ridge where Siegfried's snowplover is, then on to some snow fields. Hare tracks in the snow and hare droppings nearby. About 20 alpine troops hiked up, (plus a weapons carrier to the end of the road). The river is very low.

The grid looked the same; stake A1 still in place. Started to drizzle at 4 p.m., then rain most of the way home.

Nov 21 Dick Sage arrived last night. Went out to San Ramón and Estación Perito Moreno in the afternoon. Bittermann was at San Ramón, said it was OK to catch bats at the cave at Laguna Las Juncas, and why didn't we catch the ones in his attic!





artars and Couard not there.

Then drove to Los Jimas where we met Sage & Christie. Then went up to the cave with Sage and strung a bat net across the mouth of the cave with the bat droppings. Clear, not windy. at dusk set 9 cage traps baited with oats, among rock, palo/pedra, espina negra; some Eumeces droppings.

Caught 1 *Histioglossus montanus* at 10:30, late preg. Two owls cooing and snuffing after dusk. Took down net & traps at 11:30; no more bats and saw none. about 6 hares crossed road on our way home; hit one.

Nov. 23

Drove to San Bayas with Anita, Sage, Brewer, and David. met Daniel <sup>Gonzalez</sup> and a video cameraman and Daniel's wife of Est. Rento Moreno then on to the microwave tower on the mesa south of San Bayas. Various lizard stops en route, especially at the edge of the rim rock above San Bayas where Sage caught a remarkable diversity. Picnicked at the south edge of the ~~mesa~~ mesa where there are good rock piles with lots of *Eumeces* droppings and some *Reithrodontomys*. Then hiked from the base of the microwave tower about 1½ hrs west to Lago Los Jimas (another one!), one of the blue-water lakes that appears on the satellite photos. Sage had been there before when there were hundreds of black-necked swans. This time there were about 500 widgeons plus coots plus cormorants plus gulls plus frogs plus invertebrates, probably no fish.

MS  
3 10 18  
10 10  
10 12  
4  
of



The hike back to the lake (I didn't go all the way) is across rock - stone mesa top with sand or dust in places but mostly rock; Cole de Pich, yareta, Senecio, a few neuro, brachy race, a few scattered Boberia. Rock outcrops with hide-holes, even out on the mesa, had Reithrodontomys and Euneomys droppings.

Left for home at sunset. Lots of hares along the road.

nov. 25 Left 10 a.m. for San Colorado. Rain rain all the way. Anita & Sage collected lizards in the rain at the rim rock above La Rinconada. Visited with Jorge Rambaud, the owner of Campo Grande and got permission to sleep in the shearing/corral shed. Then we set out traps on a rocky hillside about 2 km S of the Estancia; good mixed brush / grass and good big boulders. Total traps 27 steel traps and 30 museum specials. Also 8 steel traps for tigers at a site where something had been excavating a series of tucos? burrows. Then back to the shed where Christie & Syner Branch joined us. One bat seen in the shed at dusk; spread a bat net across the door. Still raining.

nov. 26 Rain all night. Traps lines had nothing, but not 0. I set <sup>5</sup> steel traps at another set of tucos burrows. A paisano, Emilio Contreras, delegated by Rambaud to look after us, says





there are lots of tucos around (contradicting Hammond of a couple of years ago).

Emilio prepared a sheep asado for me for lunch. Stopped raining about 12:00 and snow on all the hills above. Just after we had started back for Barileto and were picking up my tree traps, no tucos, a pickup truck came through from Rahue and said the road was passable, so we turned around and drove over the pass to Rahue. Road scraper was working at the summit; 1 to 2 feet of snow. Araucaria trees in the snow at the summit.

Camped along the Rio Aulles about 3 km above Rahue, at the Hidrowater water gauge. We all put out traps (Amelia, Syner, Dick, + I). Night cloudy, sprinkles.

Nov. 27 Amelia's line of steel traps in big rocks caught 4 Phyllotis and an Akodon longifolius; Syner caught an Akodon panthorhynchus, Dick caught a big Rattus norvegicus under a willow along the river, and I caught an Eryzomys. We left at noon and drove south to Junin de los Andes with various stops for legends etc. Found a freshly killed red fox along the road about <sup>32 km</sup> N of Junin, and saw another carrying a rabbit across the road near Estancia Chacabuco. Home 8 p.m., still a few showers.

Still unresolved is the mystery of large open





burrows of badger size. dozens of them near our campsite 3km W of Rahue, but even more a few km down the Rio Alermino from Rahue. They are clustered, 10 or 12 meter diam., and a foot or more deep, usually ending blind, not ending in a true tunnel. One freshly excavated one that we tried to dig out, however, continued down deep ~~for~~ and was still going after 5 or 6 feet. There were faint cat-size footprints on the freshly excavated earth, but no tail drag. Size might be OK for a big armadillo, but what are they digging for?

Nov. 28 Chaos. Got lock fixed on van door. Lynn, Michael, Gisela, Guener, David all came by for shorter or longer visits. Then Adam Hajduk.

Nov. 30 Went out to our picnic spot at Pampa de Huenda. Daisies being bothered by insects (petals eaten). Some Rathadon holes and droppings, but only a few droppings fresh. Heard no tuco, no fresh diggings. The dead clump of lamela still with fine branches.

Dec. 1 Student Diego Anon Suarez called; wants to work on Coyba. Dinner with Arturo Tarah and visiting British yeast geneticists Spencer.

Dec. 8 Left with Miller at 9 a.m., ~~for~~ down Siroy, lunch + fishing at Rio Collin Manzano. Stopped at McCord's on Rio Trefol (not home) then across the border to Hotel Vilque on Lago Pucallpa, 7:30 p.m.





Dec 9 Left at 9:30, stopped in Osorno, then north to  
Sliffen at the east end of Lago Ranco, Hosteria  
Cunilahu where we stayed overnight (Adrian  
Duffloeg). Saw a gray fox cross the road near Sliffen.  
Many "settlers" seeming to homestead in the Osorno - Sliffen  
region; many of them Indians. Duffloeg has both  
guila bamboo and the straight coligue. He says that  
bamboo is easier to get rid of than blackberry.

Dec. 10 Left Cunilahu at 10; Muller stayed there to finish.  
We drove up the Valley and got permission to drive north  
across Fundo Arquihue and Fundo Pilmaiquen,  
two large forested parcels ~~and~~ owned by ~~Panguill~~  
Panguipulli Ltda. Much cutting of timber,  
especially rauli (according to Duffloeg). We saw  
huge logs going out on trucks. The road goes up the  
Rio Blanco (Rio Pillanleufu on our road map) and  
crosses a divide at Pampa Pilmaiquen. The divide  
has a strange bunchgrass, mire scrub, and  
acid soil. Cinders everywhere, and incredible  
huge landslides blocking the rivers. On the  
north side of the divide, various Valdivian trees  
appeared such as the podocarp, manihoe, rauli,  
and several others that I don't know. We  
camped in a clearing in the forest (old saw-mill site)  
and put out traps. Long before dark, caught  
5 also longi, 1 also olivaceum, and 1 Geofus. ~~None~~  
None of them very dark.

15  
Collected nectar from Nyro about 14 km S of





1986

59

Puerto Furi. The trees were being used by several hummingbirds. Camped at <sup>6</sup> km S Puerto Furi.

Dec 11 Total catch my traps (26 Sherman, 26 MS, 3 steel) was 1 akodon olivaceus and 11 akodon longipila. Anita's traps (30 MS and 8 steel) was 1 Geokura and 13 akelo longi. Heard chachas and whet-whet at this camp. Considerable diversity of trees and shrubs at this camp, plus lots of bamboo; one clump in bloom.

Saw a big orange bumble bee feeding avidly on fuchsia. Parrots

Left about 10 a.m. and drove to Villavieja for gas & supplies, then east to Curarrehue where we camped in the municipal campground. Could find no accessible forest or natural habitat in which to put traps anywhere between Villavieja and Curarrehue. many little farms etc, lots of cows. at dusk, chirangos were hawking insects over the river, like bats.

Dec. 12 another clear day. Drove east through farm country toward Volcan Janin and finally came to forest on the first steep rocky ascent to the summit. a grove of araucaria just before the border. Crossed the border and drove a couple of km north to Lago Tromen. Saw a few aconaecmyx diggings and runways in a meadow near the lake; set 2 steel traps there. Couldn't find a good trapping situation at the lake, so after an hour picked up the 2 traps and drove east a few km to a nice stand of un-cut araucaria on a cindery slope of Volcan Janin where we camped.





next to the Rio Tremen, saw one flowering laurel near Lago Tremen.

The change going from Chile to Argentina across Paso Tremen (= Paso Mammil Malal) is dramatic. From the ascent up a fertile, well-watered, <sup>m</sup>mild-climate valley, one passes under the "Bienvidas a Argentina" arch to be greeted by a wild wind blowing cinders along, the first ciprés, nuevo, acacia, etc. On the Chilean side a man can live on a few hectares; on the Argentine side it takes hundreds of hectares. The population density reflects this.

We set traps in araucaria/steppes/cinders. Very little vegetation under the araucaria. Out in the steppes was sparse bunchgrass, Senecio, acacia, nuevo, an ericaceous mat. Saw Reithrodontomys droppings around an island of ñire, Berberis, chaura.

Dec. 13 12 km ESE Paso Tremen (approx.), my 19 Sherman, 18 MS, and 2 steel traps caught 2 also longipilis and 1 akodon sp. seeming to be a panthorhinus without color or a very small a. olivaceus. Anita's 38 MS and steel traps ~~with Ears~~ and 4 cage traps caught 1 wren (eaten), 1 juv. anthonomys, and 4 also longi.

Dec. 15 Seminar at Fundación Bariloche (Gallopin, Marcelo Guiz, Rene Dibace, grad students Verónica (Lengua) and María (rojo mosqueta), + Rapoport.

Dec 16 Left 9:15 for Zihus Cabel. arrived 10 PM, saw scissor-tailed flycatcher at ACA gas station just north of the Rio Colorado. Saw 15 tinamous (martinetta)







Paso Tromen, Volcan Sanin, araucarias. Dec. 13, 1986  
Traps caught abodon longipila and a. pallidolinea; Reithrodontomys droppings.







Passo Tromen, Volcan Faviin. Dec. 13, 1986





Pearson  
1986

63

at 7:30 between Rio Colorado + Rio Negro, then another 19 in the next half-hour before dark, also 3 hares and 1 pale small long-tailed wild-cat the size of a house cat.

Dec 17 Silver Celel, sunny and almost calm all day. checked traps with Alberto + Marcelo in the rocks above the house - lots of dried-up bunchgrass / thorny scrub; one Graomys.

In the afternoon went to Syn's study area and put out a live of 25 MS through the viscachera (bare + Sanea), some of them at burrows. Also a live of 15 Sherman, 15 MS, 2 cage, and 4 steel, mostly in very dense bunch grass and a few Prosopis. Anita put out about 20 MS and 6 steel traps in the rocks above the house <sup>and 30 MS north of viscachera</sup> Boop put about 20 Sher + MS

at 9 p.m. went to the study area and watched viscachera. Syn says maybe 50-75 individuals live within 100 m of the tower. We saw maybe 12 on the area and another 10 or 15 on the way home. Light wind, smoky air.

Saw several tinamous at 6 p.m. (martinitas)

Dec 18 Wind came up during the night and was ferocious all day with smoke + dust restricting visibility to a few hundred yards at times.

The trap live in lush bunchgrass - nothing. Anita on rocky hill 1 marmon, my live across viscachera 2 chadon varine and 1 chirogola. Other lives had 2 Elguvo, 1 Colomys, 1 Ctenomys, and 2 more

3<sup>4</sup>  
2<sup>5</sup>



abodon varius. One more Ctenomys during the day, and a 5-foot boa in a tucú set. It had a guinea pig in its stomach.

Dec 19 Reloated traps at 7 pm in fence end, no more. Wind most of night, then gradually calm by noon. Traps in dense grass had 2 Oryzomys; traps in vizcacheras had small abodons. Anita & boys caught 1 Galea, 1 Eligmodontia, a couple of small abos, and 1 med. abodon.

Slight thunder storm and sprinkle of rain in afternoon. Put out traps in a cortadera "marsh" (dry) in the afternoon; good rich ungrazed vegetation including guinea and broad-leaved grasses; lots of guinea pig droppings; saw no Reithrodontomys droppings. This was back a dirt road in the Park where the ruins of the old Salgado mansion are, then back up a canyon in the direction of the park headquarters. I put out about 15 Sherman, 15 MS, 5 cage, and 5 steel traps. Anita put out about 40 mixed traps, and the boys about 25. Anita had (still) about 15 Sherman + MS and steel traps in the rocks behind the house. Sunny and hot.

Dec. 20 my traps caught 3 small abodons and a Leontidephys. Anita's line in the Salgado Canyon caught 3 taedi and an abodon, and the boys caught a big abodon.

The Leontidephys was dead in a steel trap set in a good outcrop of rock that comes down to the





road at a line of Cortadera about 100 m before the end of the road. The vegetation nearby was a rich mixture of bushes including one that I don't know: small compound leaves like an acacia, almost no spines, a showy yellow flower with large petals and red stamens quite showy. Lynn thinks it might have been introduced at the Gallardo ranch house. Lots of refugia in the rocks. Rolled cats sprinkled on the trail. Anita found lots of snails on her line 100 m away, maybe food for Sestodolphys?

Skinned until 11 a.m., then left for Bariloche. Sunny and hot. Took 2 photos of Lynn's study area from one of her platforms on our way out - mostly Garrea with almost completely eaten-out "understory". Her 1-m enclosures (excludes uscalos, hares, and tinamous) are impressive, even though this season has been very dry (and last year very wet). Smoke from several fires visible on horizon. Hundreds of square miles could burn on a windy day. The ranchers think fires are good.

Found fragments of a small pale spotted cat DOR between the Rio Colorado & Rio Negro, also a DOR rhea between the rivers. No tinamous seen on this stretch ~~in~~ at 2-3 p.m. Overnight in Neuquen.

Dec 21 Clear & warm. Left 7 a.m. Saw 10 rheas grazing in scrub near El Chocón. Stopped at zoo near Piedra de Aguila where they had 2 kinds of local wildcats Felis colorado and F. pajeros, both rather





small (house-cat size) with spots not very conspicuous. 2 birds of amodillar: peludo and pichi, the peludo much bigger with broad head. The caretaker said the pichi in captivity goes underground for a couple of months in winter but not the peludo. They had a Lagidium from the damante at Piedra de Aguila. javalis with striped young.

Sets of tucos-tucos diggings along the highway for the first 5 miles or so south of Sihu Cabel.

Home 4:30 p.m. Tonto Xmar Choral, warm, clear.

Dec. 22 Gwen + Dave came at lunchtime, then to Est. Perito moreno. Warm, clear. No Reithrodon droppings. Talked with Ramon Marful who says the lake is at as low a level now as it usually is in Feb. (but we have seen it this low before in some months of spring or autumn), moon  $\frac{1}{2}$ , waning. Hunted with night vision goggles for Reithrodon but saw none.

Dec. 23. morning partly clear. Anita's 5 cage traps around camp under the rock pinaculo caught 2 abdomos longipilis. Counted pellets in the Marful meadow then back to Bariloché.

Dec. 24 Gallopins called. Dinner with Dave and Gwen; they have 4 wigeon brads still under observation. 16 or more coypus in the lake at Perito moreno including a litter of eleven.

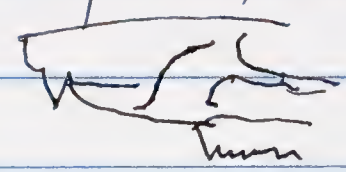




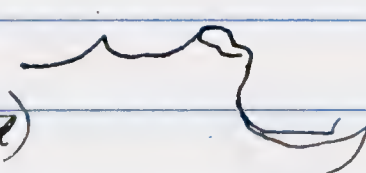
same Brooke specimens from Zihue Cabel  
(in Bariloche)

- ♂ 61 Oryz? 195 x 113 x 25 x 16 22g. June 19, 1985  
skeleton: narrow interorb
- ♂ 62 Oryz 198 x 115 x 25 x 17 27g. June 17, 1985  
skin + skull. Looks OK for a shorter-tailed Oryz.
- ♀ 55 Group 2. 297 x 165 x 26 x 27 59g. sk + sk
- ♂ 57 " 278 x 157 x 26 x 29 59g. flat skin + skull
- ♀ 53 akodon 172 x 78 x 22 x 16 28.5g. June 6, 1985  
flat skin + skull  
~~flat skin, no skull~~. Broad tail, softer fur  
than neft, eyes not buffy
- ♂ 50 akodon 174 x 83 x 22 x 18 34g. June 6, 1985  
skin good match for Sosa #8.

skull attached, broad inflated  
interorb with sharp edges;  
zygo plate very broad, low, curved,  
and shouldered



upper teeth simple } no ant. notch  
lower no notch } 4.6 mm.

- ♂ 65 Cuis 195 x 0 x 41 x 25 265g. July 1. Distinct eye ring,  
hind toe nails long straight, distinct bare chin  
glard, almost no ascending ramus, <sup>coronoid, or alveoloid</sup> upper incisors 2.7  
pale yellow, M' like Reiss's australis.  
[= not microura.] Sacral as in Saka  
(completely interrupted)
- 

- ♂ 64 Cuis 185 x 0 x 33 x 20 210g. June 27. flat skin + skull  
same as 65





DV #2 ♂ skull only of Didelphis

AB #67 July 9. Piece of cat fur







amanuay to right of trail ascending above the Refugio at Chalhuanco, compare earlier photos such as 1983 Dec. 25, 1986



amanuay area (eastern out) to left of trail above Refugio. Dec. 25, 1986







Pearson  
1986

70

Dec. 25 Drove up to Refugio Neumayer (Challinor) and looked up as far as the photoed dense patch of amancay. It looks the same. The patch just below it and across the trail, where there were many Chelone earth cores 2? years ago, is still not regenerated to amancay; mostly ? Vicia?. Hardly any amancay in bloom yet. Warm sunny day, but only one other car at the Refugio. Road poor.

Saw legumes with seed pods, but significant seeds not seen.

Dec. 26 Went to Puerto Bles and measured bamboo. Sunny + warm, lots of tabanids. The clump (D-1) at B4 on grid about same. It has very long branchlets. The grid is more open, less understory than I had remembered. Then counted bamboo in bloom on the way to El Abuelo (16). Big parrots feeding on fruits of Desfontainia.

Dec. 27. Puerto Bles. Sunny + warm, see bamboo. Back to Bariloche at 5 p.m.

Dec. 30 Drove out to Estancia San Panon and looked for bats in various buildings, guided by Conrad Bailey. Numerous droppings falling through ceiling cracks in the wing above the maid's quarters; could see into the attic but no access; no bats visible. The droppings looked OK for Histiotus. Then looked in a shallow cave across the reservoir. Saw 3 ? Myotis? singly in deep cracks but couldn't get them out; droppings below them.







The dead bamboo clump at  
the Post Office at Puerto Blest.  
Compare photos taken in earlier years.

Dec., 1986  
27





Courel says that Marful's house is on San Ramón property, formerly a school house for the Indians living ~~off~~ back in the La Fregua canyon. There is an abandoned San Ramón Puerta at the end of the road, Marful's property begins at Microwave Hill and runs toward Pilcaniyeu.

Arturo Kölliker says this is the second dry year in a row; 500 mm instead of 600 (the average), but this winter it was all rain, which runs off, instead of snow. They even had a fire in July.

Stopped at Cerro Seco to look at Matisia for Irene Baker. Could get no nectar in the pipettes, although traces of moisture were visible at the bases of the ray flowers. A bright iridescent fly worked over the tops of the stamens and had its belly covered with yellow pollen. Honey bees were visiting the flowers, probing down the ray flowers. Seemed like they were ~~feeding~~ collecting nectar; they carried no pollen on their back legs. There were pale lavender-to-white blossoms. Some of the buds and flowers had produced a gummy exudate, and some leaves had what looks like dried sugar on them.

Dec. 31 Gallopin's for dinner, Jorge Vallerini says Tehuel malal should be Tequel malal.

Jan. 1 To Gao Gao bamboo patch, then to Cerro Otto bamboo patch.





1986 (fall)

## Species Accounts

Argentina





Pearson  
1986

93

## Bamboo

Nov. 4

Elao - Elao. Went to our marked bamboo clumps near Lago Escondido. The presence of an abandoned well suggests that ~~the~~ the area was once cleared and farmed. The presence of very dead clumps of rose mosquito within what is now pure bamboo with no understorey indicates that the bamboo has spread and choked out the rose that had established itself before, or shortly after, the last bamboo flowering.

Nov. 6

To La Veranada with Anita + Isabel. Light readings around clump (E1), clear sunny, ASA 100 without the opaque filter: clear sky f 11  $\frac{1}{40}$ th

2m out from periphery  
and 2m high

ground level at  
periphery

fraction of light  
using  $\frac{1}{50}$ th as  
open sky

$\frac{1}{40}$ th

$\frac{1}{15}$

2m out ~~0.8~~ base

0.8

0.37

$\frac{1}{30}$ th

$\frac{1}{30}$

0.6

0.60

$\frac{1}{50}$

$\frac{1}{15}$

1.0

0.30

$\frac{1}{30}$

$\frac{1}{11}$

0.6

0.22

$\frac{1}{50}$

$\frac{1}{30}$

1.0

0.60

av. 0.8

av. 0.42

Isabel marked leaves at (E1) at the 14<sup>th</sup> node of 84/85 (#4) on west side of clump. 36-38 ramitas and 117 leaves (black dot); the new leaves not out yet; new shoots not up.

I marked leaves at E2 84/85 (#1) at node 16 of 30. 24 ramitas, 57 leaves (blue bentel dot); cane was 8 ft. tall





Pearson  
1986

74

## Bamboo (cont.)

Nov. 6 (cont.). La Veranada. Here, and at Glas Glas, each branchlet seems to produce 3 ~~leaflets~~ leaves at each growth period. Yearling culms have not yet sprouted, but the 2-yr-olds have only 3 leaves per branchlet. Older culms may have 5 or 6 leaves, occasionally up to 15 at E1. The <sup>longest</sup> branchlets of old culms are much longer than any on the 2-yr-olds, and have leaf scars that can be counted to get an age estimate for that branchlet ( $= (\text{leaves} + \text{leaf scars}) \div 3$ ). Since few of the La Veranada branchlets had more than 5 or 6 leaves, the longevity of a leaf is less than 2 years.

Dec. 4 Visited Glas Glas with Muller and collected 12 bamboo shoots for cooking, 8 to 18 inches long. 8 of them contained a single larva; spiral track, faint puncture mark near tip. One clump had a dozen or more fat new purple shoots up to 6 ft tall.

Dec 5. Collected 15 shoots up to 18" at Castaño Overo near the camp site, thinner than the Glas Glas over above. Only 1 of these contained a larva.

Dec 2 Ram 4 weighed  $132.0 - 5.1 \text{ g} = 126.9 \text{ g}$  air dried

Ram 3 weighed  $25.0 - 4.7 = 20.3 \text{ g}$ .

~~Dec. 8 Left with Mullers at 9 AM, down Siqui and up Trafal, lunch at Rio Cullin Manzano. Then stopped at Mc Claude on Sago Trafal, then on to Chilo over Paso Payahu and spent night at Hotel Vilque on Sago Payahu.~~

~~Dec. 9 Left at 10, stopped in Osorno, then north to Skiffen at east end of Sago Panco where we stayed overnight~~





Pearson  
1986

75

## Bamboo (cont.)

Dec. 26 Puerta Blect. Clump D1 on our trapping grid has unusually long branchlets (*longirama*?) up to 30 inches long and with as many as 34 leaves + leaf scars. The leaves seem to be in batches of 3 or 4. A plant blooming on the edge of the meadow showed a mini-leaf at the base of each flower stalk, even on old leaf branches. See photo.

Dec. 27 A big new shoot in D1 grew from 198 cm yesterday at 2 p.m. to 199 at 10 a.m. today, warm. The measurement a bit sloppy. A careful roadcount yesterday from the Chilean end of the meadow to El Abuelo, about 2 km, showed 8 clumps in bloom on the NW side of the road and 8 on the SE, = total 16. Seven of the eight on the SE side were either very small culms or only one or a few culms in bloom.

Photod the dead culm at the "Post Office" - no change, lots of raspberry plants; and yesterday photod the 2 dead clumps in the meadow.

A random sample of parasitized shoots along a short stretch of the trail to Los Cantaros, some of the shoots 3 to 5 feet tall, showed:

1st 10 shoots	-	3	parasitized (tunneling larvae)
2nd 10 "	-	1	"
3rd 10 "	-	5	"

Jan. 1 Gao Gao - 2 samples of this year's shoots found

Parasitized	not Parasitized	Saw all 3 Rhinocryptids
10	7	in the bamboo,
<del>2</del>	9	
(12)	(16)	







op 7378 male *Seistodelphys* from steel Dec. 20, 1986  
trap overnight at Sikur Cabel. Stomach contained much  
small-mammal fur. Chest + abdomen glow ~~blue~~ salmon-pink  
under UV light.





Pearson  
1986

77

# Reithrodon

Nov. 16 - Warful's meadow. Two hours of hunting with NVGs saw nothing. A couple of weeks ago saw only one juvenile. Photoed it. Note that almost all of the abundant droppings from last may have disappeared. Note also that the spring droppings at San Ramon had disappeared when I visited there in April or May, hence Reithro droppings last only 6 months or less. The May droppings were also gone at Estancia Condor.

Dec 22-23 - Warful's meadow. Two hours of hunting with NVGs, saw only hares. almost no droppings, but pilaeae etc. fairly abundant and blooming.

Counted droppings along fence and then out toward the brick pit, as follows:

Reithro   Hare   Sheep.

0	4	8	
1	1	2	av. diam. of heap
1	1	8	50.8 cm,
0	8	4	area of heap = 0.203 m <sup>2</sup>
6	3	15	
1	3	13	
1	9	5	
0	5	25	
0	4	25	
0	6	90	
10	44	195	

average  
per heap 1.00   4.4   19.5

av/m<sup>2</sup> (4.93)   (21.7)   (96.1)

last year: 308   104   190  
62x   5x   3x





1987 (spring)

Journal

Argentina





Pearson  
1987

3

April 15 arrived Bariloche in afternoon, my seatmate from BA was Diego Nottelohm, cousin of Fernando, and owner of a summer house on the Villa Tacul road on the Sloc Sloo Peninsula.

Weather in Bariloche sunny, mild, not windy, Michael + Shiraz Christie at the apartment. Summer was very hot and very dry, many forest fires, Poplars not yet yellow, rosa mosqueta fruits red.

April 16. Bariloche, sunny, mild, mailed Reig Grooms. Left 3:30 for the Estancia Tehuel Malal; much work paving the road. Put 30 Shermans baited with oats north of the road at Arroyo Chacabuco, 5 km NW Nahuel Huapi, at dusk. Some moist grass/juncos, lots of thistle, Suaeda, Berberis, some winter <sup>cherry</sup> nearby. While waiting for the road crew to go home, saw hare and a pair of Cal. quail grazing on turf in a strip at the edge of berberis; competing? Slept in car at edge of the road on top of the Tehuel Malal owl cliffs.

April 17 Heavy frost, ice on puddles. at 11:30 PM about 6 very excited young men from the road-workers camp a mile or two west descended on me, wanted to know was I alone, examined my tire tracks, and shouted something about they were looking for a certain vehicle. I never figured out what their problem was, but felt lucky that they left without stealing more than my butane stove, which had been sitting on the ground next to the water can.





and maté hettle.

12 mice in the traps; none in the grass/juncus, but almost every trap in the weedy/bushy places was occupied. catch: 3 Phyllotis, 1 Reithro, 1 anulicomys, 7 cho. longi.

Tested the 4 species on rosa mosqueta fruit; see Rosa species account.

at 7 p.m. put 18 Sherman baited with oats in the Rosa mosqueta / apricot in the abandoned orchard where the road up Cerro Otto leaves the Faldeo. Saw no piles of eaten fruit. One very busy yellow jacket nest in the bank below the road.

April 18 Bariloche  
Traps caught 4 Oryzomys, period. Frost, yellow jackets working on balcony at 10° cloudy. Overcast almost all day, no wind.

In afternoon put <sup>31</sup> ~~about 30~~ Sherman and 39 Museum Specials at Cerro Grouse; one line near the bottom of the cliff and the other in the flatter parts

as you walk from the road/fence towards the cliff, almost all the vegetation consisted of bunchgrass, narrow leafed Paeclois, and Mulinum, a few scattered rosa mosqueta, chacoy, and Collatia, and Senecio. = bush steppe, ground cover about 50%. Quite a few cardonillos (monocots), hardly any Acaena. I seem to remember also in the spring the strap-leaved monocot that the striped





caterpillars eat. As you get higher to the rocky shaley part *Palafoxia* comes in; up to 2 m tall. The slope to the north, across the road, is more grassy, and there are myctens in the moist parts and some turf.

Very few pellets in the crevices and these mostly old. Saw no owls. Picked up all pellets.

April 19 Cero Feo. Night mild, mostly overcast, a few sprinkles before dawn (dawn at 8 a.m.). Heard a faint barn owl at dusk last night. Jack-lighted with night vision goggles at 9:30 and 2:00 but saw nothing except 1 bat.

Tropline along bottom of cliff in scree and *Palafoxia* (17 *Shermans* and 12 *MS*) had 1 yg adult *Phyllotis* (released) and 1 spring empty; others not touched. Lower line had 1 ~~*Phyllotis*~~ <sup>also *Phyllotis*</sup> (under small-leaved "radal" bush with blue berries), 2 ~~*Phyllotis*~~ <sup>other</sup> *Phyllotis*, and 1 *Elgmodontia*. The *Elgmodontia* and ~~*Phyllotis*~~ <sup>also *Phyllotis*</sup> were in *MS*. Note no *Acho* *longi*.

Other mammals known to be at this site are viscacha (*Lagidium*), *Ctenomys*, *Lepus*, *Conopatus*, a spotted wildcat, and *Eumeces* and *Amblyscopus*.

Mice scarce, no wonder owls not active.

April 20 Bariloche. Day <sup>M</sup>mild. Visited the Fundación Bariloche and talked with María, the girl studying rose mosquitos, and Veronica, the girl studying lenga. Both interested in the role of mice. Then drove to Paloma Blanca





Reagan  
1987

6

looking for a burn (or forest fire). The edge of one is visible from Polanco Blanca, but a Dutch hiker says the big burn is much farther in. Worked on the pallet paper.

April 21. Partly cloudy, a few sprinkles. To INTA and saw Bouma, Julietta, Rosa Valverde, and the statistician. Then home to pallets, Michael, Patricia, Adrian, sprinkles.

April 22 Bariloche. Rain. Tested mice overnight with leuca seeds supplied by Verónica. Mice had apple and rolled oats available. All three species gnawed an appreciable number of seeds, even though there does not seem to be much "mud". Sort of like Rumex seeds. The mice were 2 Abolodon, 2 Abolodon longipilis, and 2 Oryzomys.

afternoon clear & windy. Adrian Morgan came to talk about his thesis, and Carlos Carranza (former park guard).

Went to Fundación Bariloche and saw Gallopin and Isabel. Isabel quotes Jorge Morello as saying that during a forest fire in Araucaria, cones exploded and shot seeds 100m! A falling tree has squashed one of our Ilex Ilex bamboo clumps.

April 23 Bariloche. Adrian Morgan and Javier Ballal visited. Javier says only grey foxes at Pilcomayo and almost all red foxes at El Condor, thinks they probably meet at Pichileufu river.

April 24. To Comallo and back with Adrian Morgan to show him our trapping sites (where he is going to measure





Pearson  
1987

7

Summary of pellets collected at Cerro Leoner on  
April 19, 1987. 61 entire pellets, 2 of them without  
skulls ( ) = in partial pellets

Aulacomys	12 (15)	Eumysops	4	Geococcyx	2
also Sargis	22 (11)	Rhithra	8 (2)	Elanus	3 (1)
also Ranthra	25 (2)	Phyllotis	1 (1)	Ctenomys	2 (1)
Oryzomys	18 (2)	Chelomys	1 (2)	Iracomys	2
				Sorex	1

Barn owl feather

Total 101 (37)  
Σ 138

Habitat parameters. Sprinkler off and on. Two rheas  
at Campa Anefo. Laguna Los juncos <sup>(Perito Moreno)</sup> was dry,  
with about 30 Chimangos feeding in the middle  
of it.

Coming home took the "short cut" SE of Cerro Leoner.  
Close to the Cerro there is a very nice, not too  
over-grazed mallín of about 4 or more ha.  
It must be the source of some of the Aulacomys  
that the owls catch but that we don't. But  
essentially, from the mallín to beyond the  
airport on Estancia Condor, it is almost pure  
bunchgrass. Bunchgrass in other directions also.  
Just SW of the mallín are several ha of turf, and  
to the NW maybe 10+ ha of 15 to 20-ft-tall pines  
in dense plantation. The top of Cerro Leoner seems  
to support the densest ciprés forest around, but  
they are still scattered enough to have lower





branches,

April 25, 26 - Bariloche. Working on owl paper. Drove up Chalkuaco Sunday morning, larks and tines gorgeless but not yet at peak color. Only one other car on the road.

April 27. Bariloche. Alberto Sosa arrived from Fines Cabel. We drove to the cliff over Estancia Tequel Malal and looked for owl pellets. Found only one: an Arenomyx! Then drove to Est. Fortin Chacabuco and looked under the willows for pellets (Bubo). Found only a dozen or ~~so~~ so old fragmented pellets: 1 Arenomyx, ~~1~~ 1 Chelomys, 1 Chodan fouthorhina, and several Perithodan and Auliscomys.

April 28 Drove to Est. San Ramon and La Fregata <sup>with Alberto</sup> Courad + Arturo were fixing a truck (and fixed my battery cables). They had no fires in the summer, say that ~~the~~ the road to Picanigen is going to be paved soon and that it will destroy the Malin de Villegas. Useful says the road will go through the meadow where we studied Perithodan. Given Brewer's swidger family, when the Laguna Los Juncos dried up, walked to the pond at the headquarters of San Ramon - maybe 2 hrs.

Water leak crisis in apartment, then to Refugio Neuquen <sup>with Alberto</sup>. Just before dark he set 26 shermans and I set 36 shermans and 12 cage traps, all along fallen logs or rotting wood pile. He had a few at holes at the base of trees also. This was a few hundred m down the road from the Refugio.





a few parrots were squawking. The autumn colors great, the soil light and organic, much sign of Chelomys and/or Geomys. Five large fescue <sup>with Berberis peruv and among</sup>

Adriano's COPIET check bounced because I didn't present it for payment in time because it was mis-addressed to me on some unknown street in Barileto with no number.

April 29. Refugio Krummeyer. Night was calm, partly clear partly misty, nowhere near freezing. Heard horn owl during night. Horses visited camp. Alberto's traps had 3 Chelomys and 5 also longi, my traps had 5 Chelomys and 8 also longi.

Excavated about  $\frac{1}{2}$  m<sup>2</sup> of the forest floor near camp (at  $\pm$  random). Retrieved 280 g of amaranth rhizomes. Weighed after washing and partial drying.

April 30. To INTA and Sloo Sloo with Alberto. As noted by Isabel, a huge douglas leaved has fallen on the marked bamboo along the trail to Sago Escudido. Alberto left at 2.

Veronica returned the longipilis and the Oryzomys given to her and Maria several days ago. She says the Oryzomys have littered.

Found a big chelon longipilis dead on the trail through the bamboo at the Sloo Sloo study site. It had torn skin on neck.

May 1. Gallopins'.

May 2. To Chahuaco. When Alberto was trapping at





Refugio Neumeyer, when he was breaking up traps the next morning, something had pulled out one of the wires on the Sherman trap; the wire was lying on the ground. This has happened in other places also.

may 3 at dusk set traps in pure ciprés forest about 300 m west of Christie's house. Call it 2 km W Barulabo and 100 m elevation above the lake. 7 cage traps at the base of big old cipréses, 2 cage traps at a boulder below road, and 32 Shermans through younger ciprés forest. Hoping to get Leomys, but I don't remember ever trapping in pure ciprés before. There are a few scattered rodos, cardonillos, Ephedra, and various grasses.

searched for a half hour with NVGs but saw nothing.

may 4 Only 2 mice: an Oryzomys in a cage trap at the base of a big ciprés but near edge of road with weeds and grass. The other an Abodon sp. in cage trap by boulder in weeds below road. None of the Shermans in the forest were touched.

Topo sheet says top of Cerro Leoner (sic) is 987 m. Drove out about 10 km past La Polona Blanca (arrayo medio) looking for burned habitat to trap, a couple of slopes south of the road, of rather non-descript habitat are completely burned. Probably microscrub, berberis, acacia, retamo, and some





patches of trees in gulleys. Uninspiring. Did not set any traps

may 5 Barro Colorado

may 6. Rain during night and all morning. To Cerro Grouse in afternoon with an air photo borrowed from Carlos Martin and Monica, taken in Jan. 1970. Tried to identify habitats.

may 7 To Elao Elao barro Colorado with Isabel Gallopin. Cold, heavier of snow. Counted leaves on marked canes. One cane destroyed by falling limb. Another, of the pair across the path from the well, couldn't be located. Two big quinal plants (Phrygilanthus ~~lanceolatus~~ lanceolatus) loaded with blossoms, but I couldn't get any nectar from them. Hummers come to my feeder in light snow.

~~may 8~~ In the afternoon back to Cerro Grouse with the map and finished estimating area covered by 8 different habitats, within radius of  $2\frac{1}{2}$  km of the barred owl roost: not counting 23 ha of lake:

Forest (all riped conifer/plantation) 1%

Shrub (including young " " ) 4%

Steppe 44%, Bushgrass 44%,

Weeds 1%, Turf 2%

Rocks 2%, Bare 2%







*Bruchlagras holata*, Estancia San Ramón. April 24, 1987









Turf, bunchgrass, shrub, bare, and rock habitats at Estancia La Fragua, 2 km E Estación Perito Moreno. April 24, 1987.







may 8 Barileto. Carlos Martin is using 3 Regions for Parque Nacional Huapi: altitudinal, Bosque, Esteparia with 2 subregions of Bosque (coihue (including larga + nire) and a more open scrubby forest of roble, montano etc. And 2 subregions of Esteparia: glacial and non-glacial.

may 9 Drove out to the first summit and set 33 Sherman and 12 cage traps in good "Bare" habitat for Eumomys: screes, palo piche (overmature), scattered ciprés, scattered Baccharis + Ephedra. Saw no droppings on the lower part of the line, but up in the wind behind boulders saw oldish Eumomys droppings and Reithrodon droppings. Camped on the gas pipeline between Cerro Leoner and San Ramon Vieja. Very diverse steppe with a mix of duraznillo, neneo, Senecio, Acaena, another Senecio, Rosa, thin-leaved Baccharis, and bunchgrass - almost equal numbers of each.

may 10 <sup>Cerro Leoner</sup> Heard beard owls. Jacklighted a half-hour along dirt road through steppe/bush. Saw one Reithro but couldn't locate him again later or before dawn. Ran traps at daybreak. Windy on hill. No ice or frost, but still snow in shady places - shady slopes and between bunchgrasses. Took photos of Eumomys.

Traps held 1 Reithro, 3 abro longi, 1 Dryomys, 4 Eligmodontia, and 3 Eumomys.

may 11 2 abro longi overnight did not eat amarancho rhizome or amarancho seeds. Reithrodon did not





eat Rosa fruit. Eumeces ate apple and oats.

Syn Branch arrived. Went out to Santa. Javier  
and Julietta have gauged frequency of tracks  
at their lines of  $50 \pm$  scent stakes, covering  
about 4 years. Tracks of "mice", hares, "mustelids"  
(at Campo Avello), and red foxes (El Condor near our  
campsite). Hare population crashed winter of '84  
(the snowy winter), red foxes crashed a year later,  
gray foxes dropped a year later but not as much,  
mustelids did not crash (skunk + <sup>or</sup> weasels).





1987 (spring)

## Species Accounts

Argentina





Pearson  
1987

16

Abodon longipilis

arroyo chacabunga

April 17

Shillouley

AL 87-1

♂

24g

testes 3mm white, SV tiny

M1  
.634

M2  
.659

AGE  
Y

AL 87-2

♂

24g

"

"

"

"

"

AL 87-3

♂

25.5g

"

"

"

"

"

May 10

In Bare at 1st summit

AL 87-4

♀

29g

vagina not open, nipples red - large,

no milk, uterus vascular, red drain, no

scars, pelvis not open. coll/porous.

May 11

captured overnight, as above (1st Summit)

AL 87-5

♀

30g

uterus with scars

AL 87-6

♂

30½g

testes 3mm white, SV 2

See "Lenga" and "Rosa" for dietary info





Pearson  
1987

17

## Bamboo

~~and~~

- April 18 Bundle of bamboo drying inclosed, labelled RAM 1,  
weighs 427g. Compare with weight last January.  
Another bundle labelled RAM 2 weighs 172g.
- May 13 RAM 2 weighs 172g, RAM 1 weighs 429g.





Pearson  
1987

Chelomys

apr. 29 - Refugio Neumeyer. 73 live traps ~~in~~ in large/ amaranth/ berberis percei caught 13 also large and 8 Chelomys. Lots of digging along fallen logs. Excavated 0.5 m<sup>2</sup> of large/ amaranth/ berberis percei and found 280 g of succulent amaranth rhizomes.

apr 30 - One captive tested ate very little if any apple and oats, didn't touch cheese or rose mosqueta fruit, eat an amaranth rhizome a few times but ate less than 10 g of it [it <sup>(the rhizome)</sup> lost 10 g of weight, but much of this was probably evaporation.

may 1 3 Captives overnight:  
#2 ate apple, maybe oats, not amaranth, not <sup>not dog food</sup> rose  
#1 ate apple, maybe oats, some amaranth, not rose, not dog  
#3 no apple " " " "

may 2 #2 amaranth rhizomes + seeds not eaten, no rose, apple yes  
#1 rhizome partly eaten, amaranth seed/pod gnawed open but no seeds eaten (as far as I could find). Rose fruit opened but seeds not extracted from fruit.  
#3, amaranth seeds not eaten, rhizome gnawed through, apple eaten

may 3 #3 ate apple, little if any amaranth rhizome,  
#2 " " " " " "  
#1 " " " " " " , also  
ate the end of one of the two rose fruits; did not eat the rose seeds.

Body temps at 1:30 pm quiet: 36.5°, ♂ 36.5°, ♂ 37.4°





Pearson  
1987

19

chelemys macrourus  
May 11 1987. Refugio Nemeyer.







earson  
1987

Eumomys  
chusqueensis

20



From 1<sup>st</sup> Summit, May 11, 1987. 20 km NE Bariloche





Pearson  
1987

*Eumomys*  
*nummy*

21



From 1st Summit. May 11, 1987





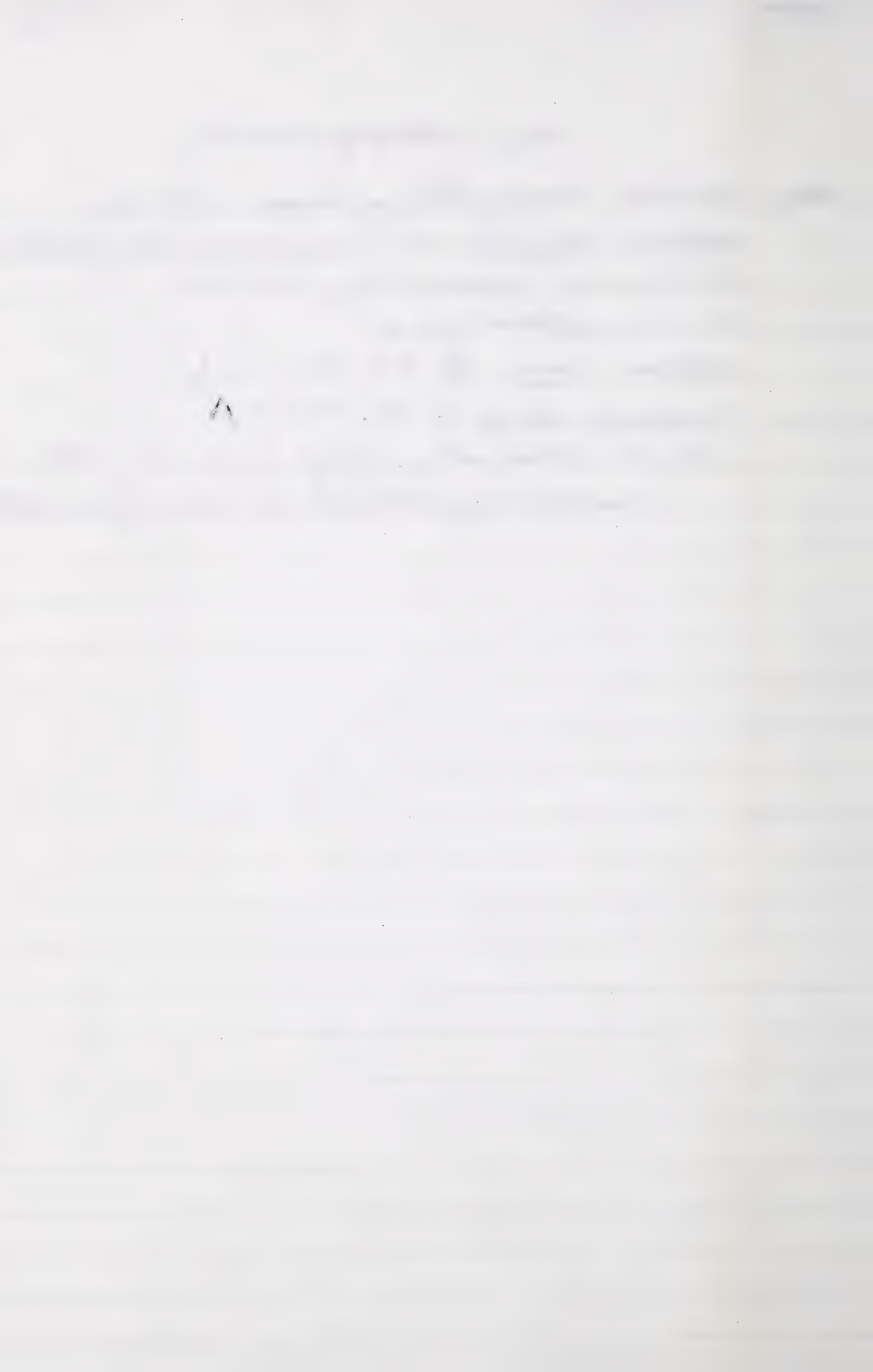
# Lenga (Nothofagus pumilio)

May Bariloch. Consumption of lenga seeds by Abodon longipilis and Oryzomys longicaudatus; Preferences, measured by Verónica on mice supplied by me:

Abodon longi  $Q \rightarrow S \rightarrow A \rightarrow L$

Oryzomys longi  $Q \rightarrow L \rightarrow S \rightarrow A$

where  $Q$  = rotted oats,  $L$  = lenga seeds,  $S$  = other seeds of lenga forest (Schinus, Berberis),  $A$  = alfalfa





Pearson  
1987

23

Oryzomys longicaudatus

April 18 Barilecho at Otto fork. Caught 4 in Rosa mosqueta,  
3 of them med size, this one juv:

0-87-1 ♀ 11½ g. M¹.449 M².469 age J

April 30 Verónica released the two left over found to her  
(caught April 18) and says one of them has littered,  
this would have been no earlier than 4/21, prob  
4/26 ± 2 days. Seems to be a yg-adult ♀.

May 2 Captives did not eat amaranth seeds.

May 3 Released in back yard. ♀ had given birth; furred young.

May 4 2 km W Barilecho, moulined in trap (ciprés forest), warmed  
up in pocket:

0-87-2 17g, ♀ 7 fetuses bumps 4 mm diam M¹.470 M².497 age Y

May 10 0-87-3 222 x 124 34g dead in live trap in Bare at  
1st summit, Testes 7½ white SV 13. M¹.382 M².400 age A

See "Senga" and "Rosa" for dietary info.





Pearson  
1987

24

Phyllotis

April 19 - caught April 17. 5 km NW Nahuel Huapi =  
arroyo chocolate;

# Ph 87-1 ♀ 225 x 110 x 31 x 26 49 g. <sup>internal nullip.</sup> not fat

see catalog for others.  $M^1 1.362, M^2 1.332$  age YA.





Pearson  
1987

25

Rosa mosqueta

April 18

Tested 4 species of newly caught mice on Rosa fruits. Put rolled oats, apple, and 4 Rosa fruits into cage with these results:

2 Abodon longi - 3 of the fruits partially eaten, apple and goe the seeds of Rosa were nibbled open

1 large Aulacomyz - apple still present; 3 fruits ~~completely~~ <sup>4th fruit gone but</sup> nibbled on outside but seeds not reached; seeds not opened.

2 yg ad Phyllotis - apple gone; 3 fruits nibbled, 1 <sup>more</sup> consumed but seeds not opened.

1 ad Reithrodon - apple nibbled but remaining; 4 fruits

April 19

as above } untouched.

but including another cage with 2 Oryz,

4 fruits in each cage.

2 yg ad Oryzomys, apple nibbled, oats mostly gone but not completely. 2 fruits nibbled in to the seeds, other two fruits half eaten, seeds opened, and many seeds extracted and gnawed open, probably ate some of the fruit, but seemed mostly to go for the seeds.

1 Aulacomyz, apple nibbled, still some oats. ate the fruits from the outside in to the sphere of seeds, then left the seed package intact & <sup>ate the</sup> fruit part.

2 Abodon longipilis, apple gone, oats gone.

4 fruits untouched.

2 Phyllotis, apple + oats remaining. nibbled the fruits slightly but not all the way in to the seeds.  
cont.





Pearson  
1987

26

Rosa mosqueta

April 19 (cont.) Reithrodon. apple gone, ate some cheese.  
Oats remaining, and dried grass. 4 rose fruits untouched

April 20 2 abdom pantha - apple + oats remain. ate into the center of  
one fruit, might have eaten a couple of seeds.

2 Oryz - apple remaining, oats gone. ate all 4 fruits  
in to the middle and opened maybe  $\frac{1}{3}$  rd of the seeds.

2 abdom longi - apple + oats remaining. 4 fruits untouched.

Summary:

		<u>Fruits</u>	<u>Seeds</u>
2 <u>abdom</u> <u>longipilis</u>	4/18	+	+
	4/19	-	-
	4/20	-	-
	4/21	-	-
1 <u>aulecomys</u>	4/18	+	-
	4/19	++	-
2 <u>Phyllotis</u>	4/18	+	-
	4/19	+	-
1 <u>Reithrodon</u>	4/18	-	-
	4/19	-	-
2 <u>Oryzomys</u>	4/19	+	++
	4/20	+	+
	4/21	+	+
2 <u>abdom</u> <u>pantha</u>	4/20	+	-
	4/21	+	+

April 21 abdom pantha - 2 of the fruits eaten into the seeds  
and a few seeds gnawed open. One other fruit nibbled





Pearson  
1987

Rosa mosqueta

slightly

Oryzomys - all 4 fruits eaten in to the seeds  
and numerous seeds gnawed open

aka longi - 4 fruits untouched

may 11 - a Reithrodon overnight did not eat rosa fruits,  
(Didn't eat offle either).

see next page.





1987

may

Testes on coffee trees in Bariloche

ESPECIE	Nº de indi- viduos	Fecha	Semillas en tregadas, pe so (en gr.) y número	Resto (pe so en gr.)	Consumo to tal (en gr)	Consumo aprox. por indiv. (en gramos)
AKODON LONGIPILIS	2	24/4	4.38 g (200 sem)	3.00 g	1.38	0.69
	2	25/4	6.57 g (300 sem)	4.95	1.62	0.81
	2	26/4	6.57 g (300 sem)	5.11	1.46	0.73
ORIZOMIS LONGICAUDATUS	2	24/4	4.38 g (200 sem)	3.36	1.02	0.51
	2	25/4	5.57 g (300 sem)	4.77	1.8	0.90
	2	26/4	6.57 g (300 sem)	3.76	2.81	1.405

Rosa mosqueta

Data of Maria Damascos, probably measured by Verónica

Peso promedio c/100 semillas: 2,19 g





1987 (fall)

Catalogue  
# 7406 - 7443

Argentina





Pearson  
1987

29

Catalog

q  
5 km SE ~~San~~ menéndez, Rio Negro, Argentina  
15  
Oct. 24

7406 ♂ Raithrodon

220 x 88 x 33 x 27

Testis 13; SV 24  
79 gms

Pickup

7407

small mustelid skull,

7408 ♂ Akodons sp.

151 x 63 x 22 x 13 26g

testis 7, SV 16

7409 ♂ Sestatelphie 90g

7410 ♂ Sestatelphie 72g

5 km W Comico, Rio Negro

Oct. 25

7411 ♀ Phyllotis darwini

open: 4 embryos

240 x 121 x 26 x 24

54g

testis 11; SV 18

7412 ♂ " "

254 x 130 x 30 x 26

56g

closed; ~~4~~ 4 and 1 1/2 embryos (one resorbing)

7413 ♀ Ctenomys

218 x 57 x 27 x 6

120g

testis 7; SV 12

7414 ♂ Eligmodontia

195 x 110 x 23 x 18

26g

not open; 6 become embryos

7415 ♀ " "

174 x 94 x 23 x 17

16g

10 km W Bariloche, Rio Negro

Nov. 1

7416 ♂ Akodon olivaceus

testis 11; SV 15

164 x 68 x 22 x 15

25g

7417 ♀ " "

lact.; not preg.

165 x 65 x 21 x 16

25g

7418 ♀ " "

parous; uterine scars

169 x 70 x 21 x 15.5

25g

7419 ♂ " "

testis 9; SV 4

147 x 61 x 21 x 16

21g

7420 ♂ Akodon longipilis

testis 13; SV 17

194 x 84 x 25 x 17

41g

3 km W Maquinchao, Rio Negro

Oct. 23

7421

Philodryas patagon.

Dropped by sparrow hawk taking off along the road.

9 km W Bariloche (1 km S Puerto Perto Moreno), Rio Negro

Nov. 6

7422 ♂ Akodon olivaceus

testis 12; SV 14

160 x 65 x 23 x 16

25gms

7423 ♂ Akodon longipilis

testis 11; SV 16

166 x 71 x 23 x 14

34g





(cont.)

Nov. 7, 1987

7424	♀	<i>Auliscomys</i>	+ fetus (3+1); CL 3+1	239 x 103 x 28 x 22	85g
7425	♂	<i>Oryzomys</i>	testis 6, SV 11	215 x 123 x 27 x 17	30g
7426	♂	<i>Akodon olivaceus</i>	testis 11; SV 14	160 x 70 x 21 x 16	21g
7427	♀	"	vg open; uterus fluidy, 2.5mm diam	170 x 74 x 22 x 16	20g
7428	♂	"	testis 11; SV 14	155 x 70 x 22 x 16	23g
7429	♀	"	vagina open, uterus about 2mm diam, no ovs	131 x 55 x 19 x 14	15 1/2g
7430	♂	<i>Akodon longipilis</i>	Testis 12; 24mm SV	185 x 78 x 24 x 17	45g

13 km WSW Comallo, 1150 m, Rio Negro

Nov. 14

7431	♀	<i>Ctenomys</i>	no liver cysts	lactating 240 x 70 x 33	120g, + guts
7432	♂	"	no liver cysts	11mm; SV 20mm, thin 253 x 70 x 35	204g, + guts
7433	♂	"	no liver cysts	testis 9; SV 18, thin 250 x 70 x 34	156g, + guts
7434	♂	"	no liver cysts	Testis 10; SV 17 thin 250 x 74 x 34	— + guts

Nov. 15

skel only 7435	♂	"	no liver cysts. hairworm loose in stomach or capture overnight	263 x 70 x 32	184g, SV 13 thin + guts
-------------------	---	---	---	---------------	----------------------------

skel only 7436	♂	"	no liver cysts capture overnight	255 x 67 x 33	170g, SV 24 thin + guts
-------------------	---	---	-------------------------------------	---------------	----------------------------

7431-36 "negative for antenatal parasites" - Sander

6 km. N. Est. Perito Moreno, Prov. Rio Negro

Nov. 19, 1987

7437	♂	<i>Akodon longipilis</i>	Testis 11; SV 21	165 x 65 x 22 x 15	36g
7438	♂	<i>Oryzomys longicaudatus</i>	Testis 6, white; SV 12	235 x 125 x 27 x 18	41g

Nov. 20

7439	♂	<i>Auliscomys microps</i>	testis 11; SV 17	222 x 97 x 25 x 20	7g
------	---	---------------------------	------------------	--------------------	----

Hipodromo, 12 km W Bariloche, Rio Negro

Nov. 22

7440	♂	<i>Eligmodontia tyfus</i>		151 x 72 x 22 x 16	16g
------	---	---------------------------	--	--------------------	-----





Pearson  
1987

31

Sago Peñal, Torres del Paine, Magallanes, Chile  
Dec. 7

skull only  
7441

lateral tail about 65 mm, not very bicolor,  
not hairy, scales easily visible.

skull only  
7442

♂ *Ambystoma longipolus* 143 x 65 x 24 x 15 testes 4 mm.

4.5 km S Paso Flores, 600m, Rio Negro

Dec. 17, 1987

7443

*Hyalinobatrachium montanum* mummy found in rock crevices by  
Michael Christie. Forearm 44.5 mm,  
foot  $\pm 7.5$ , ear  $\pm 2.3$





1987 (fall)

Journal

Argentina





Pearson  
1987

32

## Journal

Oct. 19 Bariloche. Drove up to the marked bamboo clump on Cerro Otto. Not much sign of spring yet. Two activity in the meadow. The two marked clumps are undisturbed; no new shoots. A big flock of parakeets flew over twice while we were up there.

Oct. 20. Drove to the La Veranda bamboo. The road crew is bulldozing huge wide shoulders along the road. They left our marked clump on the west side of the road—sitting all by itself amid the bulldozing. All except one of the aluminum tags had been removed, but the data written on the stems had survived. We cut all the culms and recorded data. Two new shoots only 3 inches tall. Afterwards, while we were eating lunch, a pickup truck stopped and asked if we were the bamboo people. The boss man said he had saved all the tags for us!!

Then we recorded data from the clump east of the road, including 2 ~~orange~~ orange flattened larvae from one very dead new shoot. Almost all of the dead stools had been parasitized. One other plant back in the vines had bloomed, including a yearling shoot, last summer I guess. This is the first bloomer that I remember seeing at this site. Lots of two signs among the scattered vines and bamboo.

Picked up one swallow owl pellet, which





Leason  
1987

33

contained 1 Onychomys and 1 Abodon olivaceus

Oct. 21 Barileche. Discussed mammal field guide with Michael Christie and Marcelo Canavari. Marcelo has done color plates for all of the large mammals (rabbit and squirrel & larger); the bats and mice have been done or are being done by Jacaro!!

Oct. 22. VP Cerro Otto in A.M. and counted leaves. Sunny and warm, no new shoots. Did some digging near Louisa and found lots of earthworms but no white grubs. Good legibility of marks on leaves.

Adrian Mougean came at lunch time to discuss his thesis.

Oct 23 Isidoro Gallopin and Adrian Mougean came by in the morning; his correct check came again to me at the same wrong address and was > 1 month old, so, once again could not be cashed.

Left at 11 a.m. and drove to Los Meneres, arrived at 6 pm, then drove about 8 km south and camped in bushy steppes including Torrea. Saw only 2 squashed larks on the route, 1 DOR Rhea, and a pile of 29 skinned fox carcasses 12 km E Comallo. Saved 2 big skulls and 4 small ones, but they were so stinky that I cached them for the return trip. Two other fox carcasses about 100 km further east. Saw a live pole fox viscacha in cap rock 10 km E Comallo. This is where the dead rhea was also. Saw no live rheas or guanacos. Almost no hawks, but at 3 pm





W. Maguinchao a sparrow hawk took off and dropped a dead snake into the road, <sup>Philodryas</sup> ~~Tachyphaps~~ I think;

set traps at our campsite; sign of Reithrodon, a small quinea pig, a few ~~terrac~~ night calms, partly cloudy, not cold. 700 or 300 m into night vision goggles saw nothing.

Oct. 24 morning partly overcast, calm. my trap line consisted of 24 big Shermans, <sup>(cats)</sup> 24 museum specials (corn meal), 1 Pied Piper, and 8 steel traps. Two of the steel traps were in <sup>two</sup> gopher sets, the only good open tunnels that I could find, and both these contained Sestodelphys, still alive. One other steel trap contained a Reithrodon hind foot; no other traps touched. Anita had 30 traps out (4 cage, + <sup>4</sup> Pied Piper, + 7 steel + 7 Sherman + NS). Caught 1 Reithrodon in a steel trap. Later in the morning caught an Abodon in a Sherman.

The habitat here is bushy steppe, mostly flat, with a rocky knoll about 100 m from camp, 2 shallow lakes across the road, about a km away. The ~~open~~ soil is light & sandy. The open areas are sprinkled with tiny tufts of grass, a few bunches of woody? Festuca? and plants of a daisy that stumps or annuals dig the roots. The rest are bushes up to 2 m, mostly thorny: a thorn bush with big thorns and plump black bean pods, a thorn bush with long narrow leaves, a thorn bush with herbert leaves, a thorn bush with tiny leaves, numerous Farrea plants,





Pearson  
1987

35

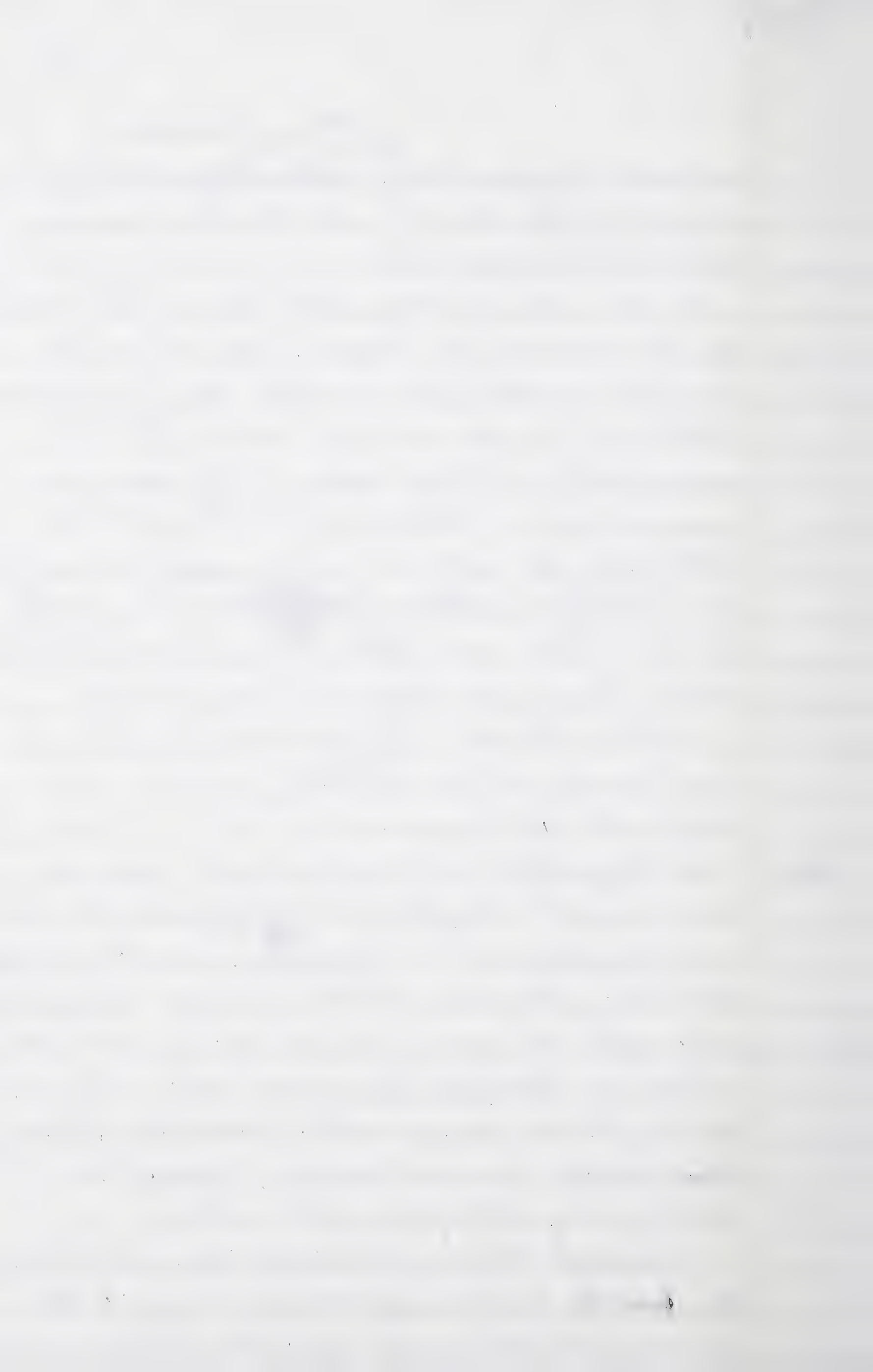
and a poor Senecio bush, <sup>a few</sup> plac. neneo (mulinum)  
noteworthy is a large  
number of harvester ants with their mounds in  
the middle of thornbushes

Broke camp about noon and drove 1 hr SE  
of Los Mochos to Comiso. Camped on the  
summit about 5 km W of the "town" of Comiso.  
I put out 23 Sherman & 23 mouse traps  
among bushes and lava rocks, but saw no  
mouse sign. Ants and bait about 23  
steel traps, all set in sandy soil in small  
tree tunnels. Supplemented with about  
15 Pied Piper cube traps, all in tree tunnels,  
all baited with canned tuna fish.

Ants set 24 Sherman and 24 MS  
in brushy slope habitat.  
Night calm, partly overcast.

Oct 25 morning partly overcast, calm, not cold. My rocky  
trap line had 5 Phyllotis (4 in MS). Ants' line had  
1 dead Eligmodontia, 2 live Eligmodontia, and 1 dead Phyllotis.  
Steel trap in gopher burrow across the road caught 1 Eligmodontia  
and 16 gopher sets plus 1 cube trap near camp caught  
1 Ctenomys like hargi/mendocinus and 1 Eligmodontia.  
The vegetation here is rather similar to yesterday,  
thornbushes of several species, Sarcra, no  
mulinum, lots of harvester ants.

Excavated a two nest, surely the nest of 7413,  
then ~~back to~~ broke camp and drove back to the  
same camp site as Oct. 24 (15 km SE Los Mochos).





wang stop along the way to look for tree burrows that might contain Sestodelphis or Notomys.

Scinea pig sign in some places, Rattus droppings at almost all, but almost no active tree signs.

Arrived at campsite at 6 p.m. and put out 21 steel traps and 5 cube traps (baited with pale), all at good tree-mole burrows, although no new tree activity. Evening clear, calm.

Oct. 26 Night very clear, no wind, light frost. Traps held nothing. Broke camp, tire repair in Joe's garage, then home. DOR only 2 fresh hares, 1 picki available, and one very pale, almost straw-colored shanks. Home to Bariloche 6 p.m.

Fed live Eligmodontia to the two captives ~~of~~ Sestodelphis, see species account.

Oct 27 Bariloche. Michel Christie brought his lizards, <sup>- Phrynosoma</sup> from different rocky places showing spectacular color variation (but consistent within each locality). Photoed Sestodelphis. Temp. mild, sunny.

Oct 28 all day with Adrian Monje and his thesis. Dinner with Patricia Fierro and Jorge Vallerini. Weather mild and sunny.

Oct 29 Lunch with Hilda Rumbolt. Sunny + mild, no wind. Photoed Sestodelphis again.

Oct 30 To El Estero to measure bamboo. One of our leaf-count culms (across from the pozo) has now lost all the leaves at the counted node. Culm is all dead distal to that node. Make arrangements to ship the two





~~Sestodephus~~ to Reig.

Oct 31 Bariloche. Made bamboo graphs at 7 pm set 27 Sherman in the marsh, 10 km W Bariloche for Abu olivaceus. Lots of good thick cover of coarse marsh grass and scattered baccharis bushes. This is the marsh just beyond the fancy Hotel El Casco.

Nov. 1 morning drizzly. Traps held <sup>6</sup> ~~3~~ Abu olivaceus and <sup>3</sup> ~~1~~ Abu longipilis.

Nov. 2 assorted people came to see the 2 Sestodephus: Arturo Tarab, Carlos Martin, Monica Merino, <sup>marcello</sup> ~~canari~~ Claudio Chelbar, and Adrian Moryan. In the afternoon took them down to a television/video store where the owner videoed the larger of the two killing a 20-g Abodon olivaceus. Then sent them both off to Osvaldo Reig's lab via Dr. Rodolfo Peredo on the plane.

Nov. 3 Drove to Rio Castaño Nuevo and camped at the usual place. Put out 12 cage traps for Sestus and then measured bamboo. Berberis linearifolia and B. darwinii are quite showy, the former more orange than I had remembered, more orange/red than darwinii. B. peresi, B. ?parodii, and the little tiny one are blooming also. One small clump had 4 off. No blooming bamboo seen. A few sprinkles of rain, but weather warm.

Nov. 4 Traps held 4 Abu longipilis adults. measured bamboo. Picked up traps at 3 pm and had





2 more also longi, got stuck on the way out to the "main" road [to Curo Tronador], and the road between Pampa Linda and the west end of Lago Mascardi is very poor.

nov 5 Barileche. Dinner with Tarah, Christie, Marcello Canavari, Alejandro, and Monica Canavari and <sup>A</sup>Monica and her art (very good).

nov 6 Drizzle, morning visits, then set traps 1 km S of Puerto Lento Moreno, or 9 km W Barileche. Habitat is very similar to the Hapudromo at 12 km West: scattered scrubby ving Berberis, retamo, acacia, mameo, a low mat plant, rosa, and antisia. Sandy soil. I put 27 Shermans and 24 MS at 4 pm and banta 20 of each plus 1 steel trap in an inactive tas Curan. at 6 pm we had 1 abodon longi and 1 also olivaceus. Drizzle.

nov. 7 Barileche. Drizzle. my 51 traps had 1 aulisca, 6 longi, 4 olivaceus, and 3 Oryzomys. Santa in 41 traps had 7 Oryzomys, 5 also longi, and 1 aulisca.  $\Sigma$  27 mice in 92 traps. none of the females visibly pregnant except 1 aulisca.

Evening gathering at Christie's house to discuss formation of a conservation/ecology "Foundation" to serve as a magnet for research funds. Present were Tarah, Christie, Rapoport, Chelobar, Bellati, Carlos Martin, Monica Mermoz, Marcello Canavari, and an ornithologist? Erythol? Good full session.





Pearson  
1987

39

Nov. 8 Bariloche.

Nov. 9. Clear day, warm. Went to Puerto Blest on the boat. Measured bamboo (see species account) and stayed overnight in the hotel. Counted flowering clumps.

Nov. 10 Clear + warm. Measured bamboo in morning then hiked up the trail to <sup>ward</sup> Frias, the trail recently cut through the woods beginning on the trail to Cantaros. Gorgeous forest, huge conifers, lots of both podocarps, alders up to 8 ft. in diameter, and interesting bamboo "seedlings" (see). We had hoped to reach Lago Los Clavos, but it did not appear in the first hour or so up the trail. Then returned to Puerto Blest, talked with the Park Guard (Pedro Prieto), then returned to Bariloche on the launch.

Nov. 11 Bariloche, warm sunny. Tried to pay taxes

Nov. 12 Up Cerro Otto to measure light around bamboo and to photo brown-age branchlets. In p.m. drove to Estancia San Ramon; the owners (Suchard <sup>Jacob</sup> Chorolote) want some photos. Saw Kowal and Julie Bailey and baby yonks and arranged to camp in arroyo Fagua on Wednesday Nov. 18. Sunny + warm, no influence came by and arranged to go trapping.

At 1<sup>st</sup> summit saw numerous Reithrodon droppings but only a few (old) Eumomys droppings.

Nov. 13 To the Bajada de Camallo at 11 p.m., sunny warm. Set out a complete line of steel traps and plastic cube traps in two - two tunnels





at various places near the top of the Bayuda and one place a couple of km west. Lots of trees actively and lots of tunnels. Baited the cube traps with crackers + pate or crackers and peanut butter. In all, set 17 steel traps and 31 cube traps - to catch Neotomys. Set in early and mid-afternoon and checked most of them at about 7:30 p.m. - 3 trees. The trees are cutting and eating twigs of shrubby bushes such as Stillingia, Sesuvio, Sesuvio, neuro. Lots of Stillingia on the line, with much excavation at their roots, and with big orange brown fuzzy caterpillars eating their "foliage". The caterpillars are also found on other plants. Camped on Nawaracka.

Nov. 14 3 more trees in steel traps but no signs of any mice in the cube traps, all of which were set in burrows. Many of the traps plugged with dirt by trees. One cube trap had a toad in it.

Day sunny + warm. In afternoon set traps on the south side of the road near the summit in a rocky place, only a few big holes, the rest scattered bushes. Ant set 12 HS, 12 Sherman, and 1 steel; I set 12 HS, 19 Sherman. Left rest of traps out.

Checked traps at 7 pm and had 4 more Neotomys.

Nov. 15 night calm, clear, clear. Frost on windshield. The traps in two burrows had 1 tree, plus 1 <sup>steel</sup> trap set in the middle of a big Stillingia had an abdomen tail. This was the only trap set above ground (except the series in two holes across to road & may live





Pearson  
1987

41

across the road in rocks had 2 *Elegmodontia*,  
ante's live nothing. Temp. warm, cloudless.

The results of 2 nights of 17 steel traps and  
31 cube traps set in burrows originally made by  
<sup>indials</sup> ~~tucos~~ that the burrows are occupied by tucos,  
~~not *Notomys*~~ and not anything else (or they would  
have been caught in the steel traps - or cube traps).

Report on cube traps: they have a fatal flaw  
for this kind of trapping: water condenses inside  
them, then soil get stuck to the moisture and  
hinders the fall of the door. Some dirt always  
gets in the front door as you slide the trap into the  
burrow.

Nov. 18 Left early for photos of the Estación Santa Maria  
area, then Konrad Bailey, administrator of Estancia San  
Ramon drove us down the canyon of La Fragua,  
beginning at Warf's gate and the railroad, past the  
east side of the condor cliff, and north for about  
6 kms to an abandoned pueblo (but house in fairly  
good condition. Crossed several streams flowing into  
the Fragua to our right. Road probably passable in  
2-wheel-drive. Farther down the canyon enters  
Fiscal (Indian) land and enters the Jimay. Saw a  
couple of harems and guaricos on the way in. Lots of  
pine plantings on various slopes, some up to 10 or  
15 feet tall. The canyon is quite similar to the  
Valle Emantado of the Rio Jimay, with cypresses  
and rock spires + cliffs.





Parson  
1987

42

The valley has been almost ungrazed for 100 or more years. Lots of fairly big chaco along the bottom (stream) and willows, large palo piche in full bloom, no rosa mosqueta, little cola de/pichi, considerable Colletia, some acacia, lush bunchgrasses, Berberis x California quail calling all around; heard no tinamou. Four condors roosted on the cliff above the Puerto. Anita put out 21 NS, 21 shermans, 7 culers, and 5 steel traps in lush bushes/stuffs/boulders. I took photos.

Nov. 19 night clear, calm, light frost. Anita's traps had 1 Crypsomys and 4 abdomen longipilis. Our camp is along the next-to-last stream before the Puerto, about 2 km S of the Puerto. During the morning we hiked up this stream about 2 km to where it flows out onto a huge open rolling tableland with a few marshy places. Stopped for lunch on a bare rocky hilltop among cipresses with a view for miles. Saw a dozen horses, a couple of dozen cows, a couple of groups of guanacos totaling maybe 15 beasts, and two groups of red deer, one of 11 and one of 6. Sunny, warm, no wind. Lots of tucos; the call is tuk-tuk.

Anita put out 25 more NS and 3 more steel traps.

Nov. 20 night clear, light frost. Anita's traps caught 1 culeromys, 8 abdomen longipilis, 1 big green masticate lizard, and 1 Ziadenus. Arturo Kolliker came to pick us up at 11, then back to Bariloche where picked Christine, Chris (of Susan Brewer) and Adrian came to call and





## Gallopins.

nov. 21 Parícut. Sunny, hot. Christo brought photos of his rock lizards. at 7 pm put out 32 Shermans and 32 MG at the Hippodromo with Nora. The soil, although reddish brown, is quite sandy, frequently bare. The vegetation is about as in previous years: nino scrub, Colletia, neveo, acacia, berberis, laurel, (Schinus), a few redal and retamo. Houses are closing in, but the central area is still OK.

nov. 22 night mild. Traps at 7:30 a.m. held 1 Elgmodontia, 1 mastic lizard, and 1 English sparrow. Severn, Brewer, Chris, and Dr. Frank McKinney came by in the morning.

nov. 26 - Dec. 13. By boat - bus - boat - bus to Puerto Moret with the Bolive and Strohmeiers. Visited the salmon culture facilities of Sever Bros. outside Puerto Moret (fresh water lake) where coho and atlantic salmon are raised in raft/nets, then transferred to salt water near Puerto Moret where they are held in nets until market size. Shipped on ice to USA. Then south by ship to Puerto Natales. Much forest, no people. Then south by car to Punta Arenas and Foz de Bulnes. Climate mild, a few gardens/plots, quite a few cattle. Then north again to Puerto Natales and Parque nacional Torres del Paine. Much good grazing land, lots of cattle and sheep. The owners of the estancias pay a bounty for mountain lions (equivalent to a cheap pair of shoes). Lots of rather





"tame" guavae in the park and numerous rheas, but not outside the park. Set 5 museum specials in traps and weeds near the hotel at Lago Nahuel and overnight caught 2 mice. During a hike up a mountain near the hotel saw abundant Reithrodon and Eumomys droppings. Ground cover (grasses, weeds, wildflowers) in the park are lusher than anything I have seen for years in Argentina. No grazing, but fires sometimes. One afternoon was incredibly windy (January is the windiest month). Hares were abundant in the park. Rabbits are said to be present but we saw none in that region.

Then drove to Rio Turbio (coal mine and lots of hares), then flew to Rio Gallegos. Drove south to the penguin colony at Cabo Virgenes (nests under robust Senecio sage bushes, downy young). Sheep country, supposedly no foxes to prey on the penguins. Then flew to Ushuaia and visited the park west of town. Many rabbits, some beavers, cutting Nothofagus and flooding more. Good sphagnum bogs. Talked with Dra. Martha Lizarralde and Jorge Robassa at the Centro Austral de Investigaciones Cientificas. Also visited the museum and saw many unpublished reports on rabbits, beavers, muskrats, etc.

Then by bus to Rio Grande - marvelous rich sheep country with patches of forest. One





sheep per hectare in good parts; one estancia (Braum-munender) with 900,000 ha. Then flew back to Bariloche.

The climate throughout the trip was much milder than I had expected, especially in Tierra del Fuego, and the vegetation in most regions was much better for grazing than in the Bariloche area. The big ranches north of the mountains in Tierra del Fuego used myxomatosis on the rabbits, with great success.

Throughout southern Patagonia, both Chile and Argentina, we saw many areas with dead nothofagus. Some were clearly the result of fires, and some just overmature stands without reproduction, perhaps because of grazing. One man said the hares gnaw some, especially in winter. One report in Ushuaia said that they were attacked by 2 kinds of fungi that turned the wood to powder. The lenga and the coihue (*N. betuloides*) are used to some extent for lumber but obviously are not highly prized.

From Sizerwald et al 1986 Physis C44: 66: in the year 1982 at Ushuaia the max. temp was  $26.0^{\circ}$  (in January) and the minimum  $-9.6^{\circ}$  (in July). max in July was  $+9.0^{\circ}$ . Precipitation ranged from 6.7 mm in December to 84.7 mm in October.





1987 (fall)

## Species Accounts

Argentina





Pearson  
1987

46

Onychomys leucogaster

Nov. 4 Castano Verde, Caught 4 overnight in 12 cage traps.  
(1 escaped during day)

87-11-10 ♂ 39g T12, SV19 age: .411, .437, .448, adult

87-11-20 ♂ 40g T10, SV17 .098, .215, .156, old

87-11-30 ♀ 30g. Vagina very tough + stout, pink & L. nipples small, teats not open.  
uterus 2mm dense no scars but looks parous  
Probably in the early-season delayed implantation.  
age: .459, .446, .452, adult

87-11-4 ♂ 37g, caught during daytime, testes 12, SV 20-  
Vagina not open, nipples small, pink

87-11-5 ♂ 36g. " " " Testes 11, SV18

age: .657, .588, .623 all

9 km W Bariloche, Nov. 7

87-11-6 ♂ 41g. T11 SV15 .638 AGE M1 M2 SV .521 .579 visual young adult

7 ♂ 38g. T11 SV21 "514" 422 491 young

8 ♂ 43g. T12 SV15 729 691 735 YA

9 ♂ 36g. T11 SV15 580 654 667 adult

10 ♂ 45g. T12 SV25 661 616 638 YA

11 ♂ 44g T12 SV21 513 569 541 YA

12 ♀ 36g Vagina open, uterus clear, 2mm, 1 faint bump.  
333 152 242 - interior old  
586 483 529 A

13 ♀ 30g. Vagina open, uterus 3mm fleshy, no pink & L.  
596 709 650 A

14 ♀ 32g. " " uterus 2mm no scars, pink & L.  
595 624 609 YA

15 ♀ 38g. " " " 3mm no scars, fleshy, no pink & L.  
581 469 525 A

16 ♀ 29g. " " " 1 1/2mm no scars, big? follicles? but no A pink & L





*Aulicomya microphus*  
~~minut~~ ~~minut~~

Nov. 17 Caught at 9 km W Bariloche

87-11-17 72g. ♂ Tq SV14 epial tuberc visible,

age  $M_1 .281$ ,  $M_2 .147$ ,  $av .214$  adult





Pearson  
1987

48

# Bamboo

Nov. 9 Puerto Bles, counted flowering bamboo between the camping meadow and El Abuelo. a total of 9 on both sides of the road. 5 on the north side, 3 of which were bunches that had bloomed last year also. In other words some culms of a clump had bloomed last year and other culms were blooming this year. On the south side of the road 4 bunches were blooming, and of these two had culms in which the same culm had bloomed last year and was blooming this year also.

Measured light intensity around clump D1 on our study grid, 3 p.m. clear sky, the clear sky with 6x filter

at periphery near  
where new shoots  
would appear,  
1 ft above ground

2 meters out from  
periphery and 2 m  
above ground

open  
sky

ASA 100,

f. 16. Shutter

Speed:

North side

1/2 sec

1/3 sec

East side

1 sec

2 sec

South side

1 sec

1 sec

West side

1 sec

0.75

open sky

av  $0.875 \text{ sec} = .048$

$1.104 \text{ sec} =$

$\frac{.042}{1.104} = .038$

open sky

$\frac{1}{4} \div 6 = .042$

intensity of  
light  
compared to  
open sky

Nov. 10

Measured clump D2 in morning.

North side

1/3 sec

1/6 .167

open sky

East side

1/3

1/4 .25

1/50 = .020

South side

1/2

1/8 .125

West side

1/3

1/8 .125

$\frac{.020}{.167} = .120$

av.

$\frac{0.37}{.37} = .054$

av .167 =





Then hiked up the Firas trail over a couple of saddles. On one of them, a couple of 100 m above the lake, rather open, numerous podocarps and coihues, were numerous small clumps of bamboo of maybe 6 culms of graded size from maybe 2 cm diam at ground level to 6 m m. Counts of leaves + leaf score indicated that the older culms were maybe 6 years old. The important thing is that no dead plants that might have provided the seeds were seen. The smallest culm of these were usually dead, and sometimes the next to smallest ~~too~~.

On the way down the hill, we passed several places where even younger "seedlings" were present. At most of these places we found one or more <sup>or more</sup> dead clumps with <sup>old</sup> seed heads. These were usually within 20 feet of the seedlings. From the degree of disintegration of the dead culms, they seem to have been dead only a few years, and the "seedlings" had only 2 or 3 or 4 tiny culms. ~~So~~ This flowering and seedling production must have occurred since we started visiting Puerto Blest, but we never heard about it. It was not a widespread flowering, nor even intense at any one place. Some culms dead maybe 10 years were seen also.

Photographed the Post Office dead clump again. It is, at last, looking rather tired.

Looked at the orientation of branchlets on





Pearson  
1987

50

## Bamboo

opposite sides of the Frias road at 2 places, defining  
the axis of leaf emergence as:



Sample 1 Road NW  $\frac{|| \backslash || | - || -}{- | - - - - - | | - - -}$  SE

note that the orientation was quite different on opposite  
sides of the road.

Sample 2 Road W  $\frac{- | \backslash - | | - | \backslash}{| - - - - - | |}$  E

again, the two sides seem to be different, so the  
orientation is not driven by "towards the light"  
(= toward road instead of dark clump + forest) nor "centrifugal"  
(= away from center of clump).

nov. 12

In clumps of bamboo isolated, most leaf clumps  
are tangential; that is, the axis is not toward the  
center of the clump.

Measured light intensities at clump A2 in the  
forest: average of 8 readings near ground at clump was  
6.5% of open sky; 2 meters out and 2 m high was  
34.6%. at clump A1 out in the open, low close  
was 29.5% and out high was 100%.





Pearson  
1987

51

Ctenomys

Oct 24 15 km SE Los Mameas, Rio negro. Thorny  
steppe with Sarrea, light sandy soil. Two  
steel traps set in two tunnels caught 2 Leoto-  
delfia. Heard no tucacs and saw no fresh  
diggings.

Oct 25 5 km W Comico. Thorny bush steppe on  
ridge, /slur rocky outcrops. Old tucac burrow  
in the big clumps of thorn, but no fresh  
digging. They cut thorn twigs and especially  
stems of the bush-looking daisy plants (which  
the sheep, horses, and goats don't seem to touch).  
The only tucac heard was way up in the rocks  
in a big thorn island. Same timber as haje  
from Bariloch but not two tree-a-tree but  
more run together.

We caught one, a female with 5, middle-sized  
fetuses and 1 small resorbing fetus; fur badly  
eaten (by lice?). We dug out her burrow,  
about 5 m, back to a nest chamber  
that contained a cache of green, daisy branches  
with leaves, plus 2 gallons of nice dry grass,  
pure grass. Scores of wiggly, larval like fly  
maggots, tiny? mites?, a few pseudoscorpions, and  
assorted other inhabitants. Enough to reward a Notomys

Oct 26 Back to the Los Mameas Leotodelfia site  
and set steel traps at 21 good two tunnels  
(although almost no fresh signs). Caught nothing.





Chenomyx

Nov. 14 13 km WSW Coahuila. Dissected:

- ① ♀ ♂ 120 gms. vagina not open. flea  
uterus with scars; much mammary tissue
- ② ♀ 150 gms. vagina not open. nipples large  
3 fetuses, CR 40 mm.
- ③ ♀ 130 gms, vagina open, nipples large. lactating.  
uterus parous,
- ④ ♀ 108 vagina open, nipples large. No milk  
uterus with scars.





Pearson  
1987

53

Eligmodontia

Nov. 15 13 km WSW Comallo, 1150m. Only cats in  
58 traps set in rocky/shrubby slopes south of  
the road at the very top of the Bajada de Comallo;  
discarded:

♂ 144 x 65 17g. testes  $6\frac{1}{2}$ , epididymus not visible, SV <sup>9m</sup> ~~12~~

♂ 143 x 70 16  $\frac{1}{2}$ g. " 5 " " " " SV 9





Pearson  
1987

54

Sestodolphys

Oct. 24 15 km SE Los Mameas, Rio Negro. Habitat a high diversity of thorny bushes plus Farrea, light sandy soil, plus rocky outcrops nearby. See journal. A couplet trap line caught 2 Sestodolphys in the only 2 steel traps set in terra burrows. Both traps were at edge of thornbush, 40 m. apart, ~~set~~ about 100 m from the nearest rocks.

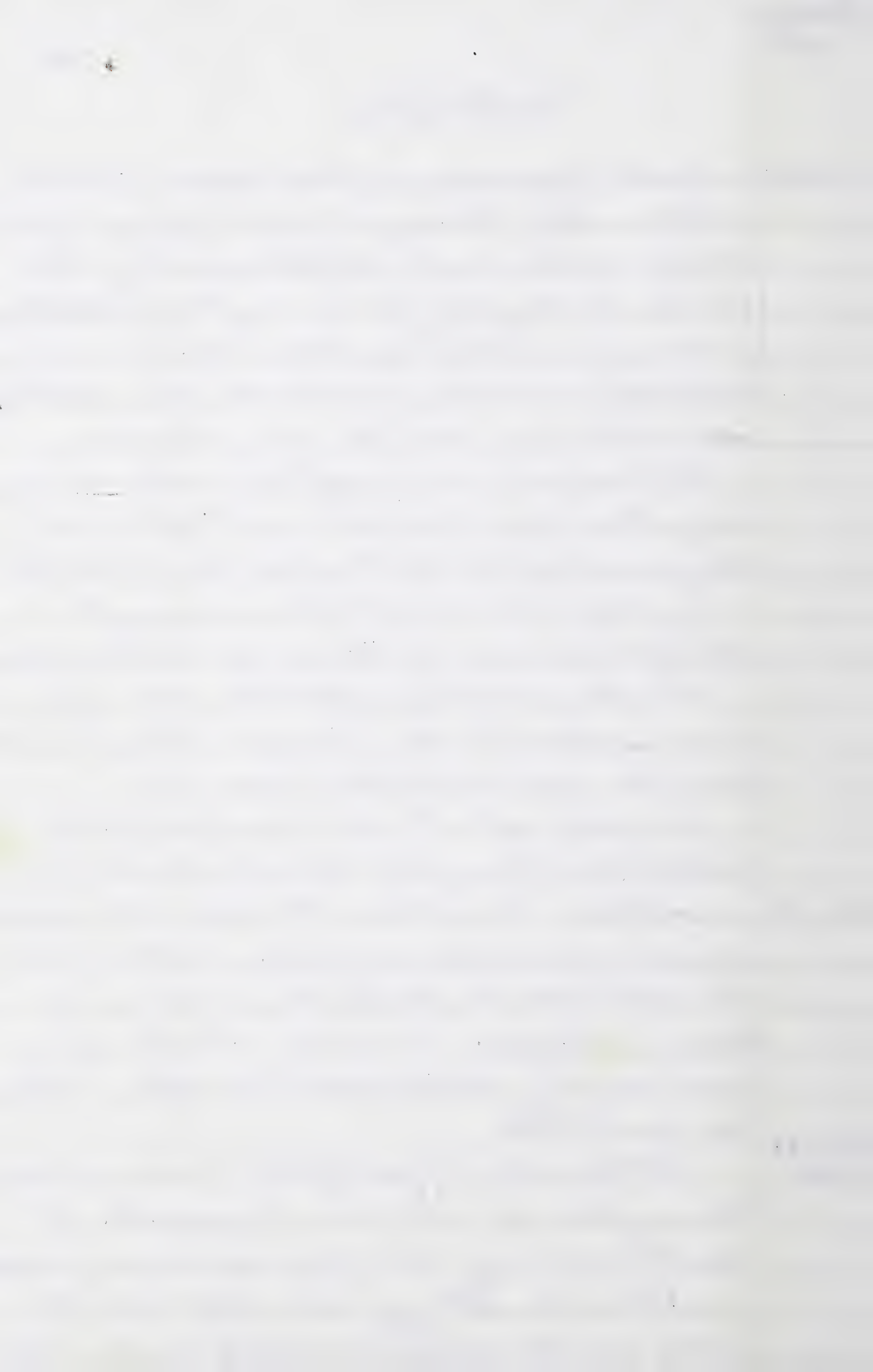
Both animals were caught by neck and by hindquarters (or base of tail) and were torpid, but they warmed up in about a half-hour in the heat of my hand. The only other animals caught in the trap lines were 2 Rhithodone and a hispid Abodon.

When they warmed up, apparently undamaged, I was impressed at the quickness of their movements. One of them made a bird-like churr sound.

One of them got out of its 14-inch deep plastic bucket during the night (in the car) and had to be re-captured. One of them ate all of the decapitated skinned carcass of the 26-g Abodon and the other ate most of the decapitated skinned carcass of the 79-g Rhithodone. One of them ate strawberry jam eagerly. Neither touched their apple, cheese, or peanut butter.

Oct. 26  
~~Oct~~

Put them into different plastic terraria at home, then supplied each with a live Eligmodontia at about 9:20 p.m. The Eligmodontia effused and finally <sup>they</sup> came into contact with the Sesto, but the Sesto did not hunt it, but a couple





Pearson  
1987

55

Geotalephie



15 km SE Los Mochis, Prov. Rio Negro, October, 1987  
Site of capture of Geotalephie







Reamon  
1987

56

*Sestodelphix*



15 km SE San Marcos, Prov. Rio Negro. October, 1987  
Site of capture of *Sestodelphix*







Pearson  
1987

57

*Sestodes phyla*



*Sestodes phyla* 7409 recovering from trap-induced hypoxia





Pearson  
1987

58

~~Sestode~~ *Sestode* *plige*



*Sestode* *plige* 7429 recovering from trap-induced torpor.  
after a week in captivity, the tail became much fatter.





Pearson  
1984

59

*Sestode l'phya*

Oct  
26

of times made quick thrust at it when it came too close, but mostly, this Sesto just groomed or sat. Suddenly, at 9:40, the Eligno wandered close, 7409, too quick to see how, grabbed<sup>it</sup>, wrapped his body around it, and within 2 or 3 seconds the mouse was dead - probably bitten through the skull. 7409 then licked the face + nose of the dead mouse and started to eat at the end of the snout. It ate steadily, almost desperately, until 9:55 at which time it had consumed everything back to the shoulders including fur, molars, incisors, skull, front limbs, and feet. Then the Sesto stopped for a thorough grooming of its face and front paws. Then it ate some more, still at the front end of the carcass. at 10:03 it rested and at 10:07 went into its nest can, leaving the carcass at the entrance (where it had been all along). By 8 a.m. all had been eaten, including intestines, except 2.3 g of tail and hindquarters with a foot and the covering fur. It was a big Eligno weighing about 25 g.

# 7410 was "asleep" in its nest tube when the Eligno (about 18g) was put into the cage. It paid no attention to the exploring, sometimes leaving Eligno for perhaps 20 minutes. Then it came out of its tube and before long (9:58) encountered the mouse in a favorable situation,





Pearson  
1987

60

## *Sestodolphis*

Oct.  
26

grabbed it, and killed it. Once again, the capture was too fast to follow with the eye, but then it was hugging the prey with all 4 feet, the Sesto head next to the mouse head. The mouse was completely dead within a few seconds.

#7410 began to eat at the nose and ate with total concentration until 10:10, at which time it had eaten everything back to the front legs. Then it groomed face & front paws, then ate more back through the thorax heart & lungs until 10:15, then it groomed some more and went exploring. At 8 in the morning the only left over was the terminal  $\frac{3}{4}$  of the tail.

Three "native" men at the gasoline station in Los Menercae had never seen Sesto before and didn't know what to call it. One thought maybe it was a baby comadreja (opossum). Nor did 2 pre-teen-age boys in Comallo know what it was.

On the night of Oct 25-26 we returned to the capture site and set steel traps at 21 sites where there were good tree tunnels, including the two where we caught 7409 and 7410. Caught nothing whatever.

The captives did not eat either species of the big black desert beetles.

Oct. 27

Both captives ate strawberry jam. One ate dry cat food pellets, raw beef steak, and hamburger.





Pearson  
1987

61

Seotodelphys

Photographed both specimens; they were rather tractable (but fur, not as fluffy as it should be). #7409 weighed 90 g and 7410 weighed 72 g.

Put a 58-g Phyllotis darwini into cage with #7409. It made a few passes at it without catching it, but did not pursue it - only reacted when the mouse came near it. Killed it after we had gone to bed and ate the front end. Did not eat the front end of the mandibles and did not eat the maxillary-interorbital region of the skull. Did not eat the stomach and intestines. 35 g of mouse remained in the morning, hence ate 23 g.

Droppings of captives eating mice are 6 mm diam, pointed at one end with a long streamer of fur, and 15 to 50 or more mm long.

Oct. 28 One captive ate 3 new-born Phyllotis. The other ate some beefsteak and some hamburger, did not eat appreciable quantities of dry cat food or wet cat food.

Oct 29 Gave the captives dry soil or sawdust to improve their fur, which was becoming oily. Helped some, but then brushed them with soil & toothbrush and this helped a lot, after a time they seemed to enjoy the brushing. Took more photos.

Overnight they both ate hamburger, and in the morning enjoyed orange marmalade. Their tails seem to be fatter than when we caught them.





Reardon  
1987

62

## Lestodelphys

Oct 30. Fed a live large Abodon longipile to the ~~larger~~ smaller of the two beasts. The Lests ignored numerous opportunities to grab it, for several minutes, then suddenly grabbed it by the neck. More thrashing around at the prey than before, and some obvious chewing of the neck region before the mouse expired. The Lests ate only a tiny bit of the mouse, then went back to sleep. When I put the carcass into the cage with the other Lests, he didn't eat any of it either. I skinned the head region of the carcass: no apparent punctures of the cranium but lots of hemorrhage and damage in the neck region. Overnight they ate part but not all of the carcass. They are not as ravenous as they were when first caught.

Likes strawberry jam and orange marmalade. Did not eat banana or apple, ate sheep brains

Nov. 1 Killed a <sup>17-9</sup> ~~very~~ Abodon discolor by a bite through the skull behind one eye; much hemorrhage under the skin.

at 5:15 pm with room 21°, deep rectal temp. of the smaller one awakened from sleep was 35.0°C. During the photo sessions, both individuals displayed strong trembling which resulted in audible striking of some body part against the glass on which they were standing. They were not at all torpid, however. They have not been torpid since the





Pearson  
1987

63

## Sestodelphys

trapping. We have not heard the bird-like  
churring since the original warm-up periods.

The diet of brains last night seems to have  
given them diarrhea.

nov. 2

Between 10 p.m. and 7:45 a.m., the smaller  
no. 7410 ate all of the 17-g abodon diuana, and  
no. 7409 ate 24 g of a 38-g abodon longipilis,  
leaving the hindquarters and tail. They never  
drag the carcass to their den but eat it where  
it drops, holding it down with their front feet  
while tearing off meat with upward tugs of the beak.

no 7410 had another episode of trembling, more  
like hiccups - 2 per second, this morning when  
he presumably was relaxed.

at 8:30 a.m. no. 7409 weighed 92 g (90 g on  
10/27) and 7410 weighed 84 g (72 g on 10/27). [The  
72 g may have been 76 or 78 mis-recorded].

nov. 3

In the afternoon filmed # 7409 killing a 20-g  
abodon longipilis (video). Before the filming,  
I had removed his rag and nest chamber; he  
did a lot of exploring, including learning to  
jump up and walk upside down from the top  
screw-in. Also, he squirmed in the dry earth  
on the floor of the terrarium in a grooming manner.  
after the kill, he did lift the carcass and  
drag it about 8 inches.

Jan. 10, 1988 - Under dissecting microscope I examined about  
8 droppings from No. 7410 and 3 from 7409. These





Pearson  
1987-88

64

Geotadelpygis

were droppings produced by the animals in their cages during the first few hours of captivity.

7410 contained mostly unidentified crud, then chitin fragments, a few small bone fragments, no fur. One tiny fragment of scapula that from shape could be Ctenomys; no fur in the dropping so must have been a fetus.

7409 contained crud, chitin and insect legs, one big piece of chitin.





Pearson  
1987

65

*Oryzomys longicaudatus*

AGE

M1 M2 av Visc

Nov. 7 caught 9 km W Barulacho.

87-11-18	36g. ♂	T6 SV11	Epidid tubes visible.	* see below
19	34g. ♂	T5½ SV12	Tubes not visible.	.394, .379, .386 A .403, .239, .320 At
20	21g. ♀	Vagina open; Uterus 1mm	no scars.	
21	41g ♂	T7 SV12	Tubes just visible.	* see below Tail 140mm .369, .260, .314 A
22	29g ♂	T5 white SV10	tubes not visible	Tail 118 .303, .238, .270 A
23	24g ♀	Vagina open, Uterus 1½	white no scars, CL	Tail 124 .355, .278, .316 A
24	23g ♂	T5 SV8,	tubules not visible	Tail 116 .423, .335 Tail 110
25	18g ♀	Vagina open. Uterus 1.2mm	white no scars, no CL	.378 A

\* skull number missing: two #18 and no #21;

	M1	M2	av	Visc
#18	.306	.288	.297	adult
#18	.332	.294	.313	adult





Pearson  
1987

66

Phyllotis darwini

5 km W Canico, Rio Negro.

Oct. 25 - Three Phyllotis caught in rosette and discarded:

① ♀ 53 gms. 4 embryos right; 2 left bump.

② ♂ 77 gms testis 14 mm

③ ♂ 48 gms testis 12 mm.

Oct 27 a fourth female from above locality gave birth today  
to 3 or 4 young.

203833



















